

CPUD '22

VII. INTERNATIONAL CONFERENCE ON CITY PLANNING AND URBAN DESIGN PROCEEDINGS



QAKAM

VII. INTERNATIONAL CITY PLANNING AND URBAN DESIGN CONFERENCE

**CPUD '22 CONFERENCE
PROCEEDINGS**

DAKAM BOOKS

VII. International City Planning and Urban Design Conference

CPUD '22 CONFERENCE PROCEEDINGS

ISBN: 978-625-7034-20-3

Editors: Özgür Öztürk

DAKAM BOOKS - Özgür Öztürk DAKAM YAYINLARI

MARCH 2022 İstanbul.

www.dakam.org

Firuzğa Mah. Boğazkesen Cad., No:76/8, 34425, Beyoğlu, İstanbul.

Cover Design: D/GD (DAKAM Graphic Design)

Print: Metin Copy Plus, Mollafenari Mah., Türkocağı Cad. 3/1, Mahmutpaşa/İstanbul, Turkey.

CONTENTS

AN URBAN PERSPECTIVE ON THE RELATIONSHIP OF PUBLIC HEALTH AND PLANNING

YILDIZ AKSOY.....5

FUTURE-PAST CITIES: HOW 20TH CENTURY CINEMA ENVISIONED TODAY'S CITIES

TÜRKAN NİHAN HACİÖMEROĞLU11

EVALUATION OF THE PERCEPTION OF URBAN QUALITY OF LIFE TRANSFORMED BY THE COVID-19 PANDEMIC IN THE SCOPE OF URBAN CONFIGURATION

GİZEM DERİNCİ, VESİLE ŞİMŞEKOĞLU17

AIRBNB, THE HOSTING PLATFORM THAT ENCOURAGED THE GENTRIFICATION AND TOURISTIFICATION PROCESS IN *SAN MIGUEL DE ALLENDE*, MEXICO

JOCELYN ELIZABETH LIEVANOS DIAZ30

EXAMINING THE IMPACTS OF GOLDEN HORN METRO BRIDGE ON HISTORICAL SKYLINE THROUGH VISUAL ATTENTION

ARAF ÖYKÜ TÜRKEN36

TRANSFORMATION OF MOUSHA VILLAGE, EGYPT: THE SHIFT FROM MUD-BRICK TO CONCRETE HOUSES

ALYA Y. SABRY, LOBNA SHERIF53

EXPLORING BUILT ENVIRONMENT FEATURES FOR THE IMPROVEMENT OF THE SOCIAL LIFE OF ELDERLY AND YOUNG ADULTS IN URBAN AREAS IN INDIA, IN THE COVID-19 SCENARIO: A QUALITATIVE STUDY

SUPARNA SAHA71

CONCEPTION OF RECREATIONAL URBAN SPACES' IMPACT ON CHILDREN'S PLAY PATTERN AFFORDANCES AND PERCEPTIONS

MAYA ELNESR.....77

INTRODUCING THE STUDENTS' PARTICIPATION, UPGRADING THE CURRICULUM: THE CASE OF THE COURSE SUSTAINABLE CITY, UNIVERSITY OF BELGRADE - FACULTY OF ARCHITECTURE

VLADIMIR MIHAJLOV, ALEKSANDRA STUPAR, IVAN SIMIĆ.....95

COUNTER-URBANISATION EXPERIENCE IN DEVELOPING COUNTRIES: THE CASE OF ISTANBUL METROPOLITAN AREA

CANSU KORKMAZ, H. FİLİZ ALKAN MEŞHUR..... 104

AN URBAN PERSPECTIVE ON THE RELATIONSHIP OF PUBLIC HEALTH AND PLANNING

YILDIZ AKSOY

Assoc. Prof. Istanbul Medeniyet University, Faculty of Art Design and Architecture, Department of Urban and Regional Planning.

ABSTRACT

Man does not live alone. People are constantly in contact with other people. When it comes to infectious diseases, an individual who gets sick carries the disease, infects others, and spreads it in space. The phenomenon of epidemics and the way people resist them change during the evolution of people's lifestyles and settlements. Larger populations live in cities more densely than life in caves and shelters. A person afflicted with a contagious disease among this dense population can rapidly spread this disease in the urban environment and turn it into an epidemic. The unhealthy living conditions and cholera pandemics created by the industrial revolution enabled the establishment of modern urbanism with a health focus. These developments led to the rebirth of urbanism. Public health problems began to lead to the reorganization of the city. This research presents a short historic and urban perspective on the relation of public health and planning.

KEYWORDS: Cities, Planning, Public Health

1. INTRODUCTION

The Evolution of Human Life and Settlement Forms is first revealed by Life in Caves. The history of civilization goes back to 25,000 BC (Kahya & Öner, 2007).

We know that these people lived in small groups in suitable natural environments, hunting animals and collecting plants in nature from the pictures made by people living in caves in those years.

When these people got sick for various reasons and benefited from their hunting, they were basically trying to survive with the help of their immune system and the plants they used as a basis for the natural knowledge they obtained in their life experiences. Because people live in small groups and in very low-density environments during this period, they cannot create an epidemic in the environment they live in, even if there is a contagious disease. By the 10,000th BC, people have settled down in time. These settlements were established in places where they could easily obtain water, which is an indispensable need for life. They had begun to grow their food, to tame their animals, and to take advantage of them. They found the fire and cooked their food. People lived in the shelters they made. When people encountered diseases in these settlements, they attributed this to supernatural forces. These beliefs developed polytheistic religions that accepted the existence of a multitude of gods, each representing a separate force of nature. When they had such a belief, they began to find the solution in the magic of sorcerers who said that they manipulated supernatural powers. People began to use what they experienced during their illness as a kind of folkloric knowledge to alleviate the consequences of their illness, using the knowledge they had gained from their observations of nature and nature. When the inhabitants living in some settlements increased and diversified their production and started to carry out long-distance trade with the geographical specialization they created, the emergence of class differentiation within the settlements brought about the transformation of these settlements into cities. At this stage, when cities were formed, people's search for solutions in the face of the disease was in two ways. In a first way, it was a solution method based on supernatural powers and religious discourses. The second figure was based on the use of life experiences of illness and knowledge of the interaction between the use of medicines made from plants, animal substances, and minerals in nature. The subject of developing this knowledge started to develop as a specialization area (Tekeli, n.d).

The doctors of this period were aware that the solution to the infectious diseases that caused epidemics could not only be provided by the treatment to be applied to the patient but also required the development of public solutions (Tekeli, n.d).

City administrations, who wanted to avoid the destruction of an epidemic disease, should first be able to put into practice by producing public solutions. People living in this period knew by living/observing that unclean drinking water, dirty wastewater that could not be removed from the place where they lived, the environment that could not be cleaned, contributed to the spread of epidemics. Successful action on these issues required the implementation of engineering projects at the public level. The most basic issue to be resolved in the establishment of cities was the provision of sufficient and clean water and the removal of the used water from the living place. For this reason, with the development of cities, developments and accumulations in water engineering began to be experienced.

2. URBAN PLANNING FOR HEALTH

Unhealthy living conditions created by the industrial revolution; The cholera and plague pandemics have revealed that modern urbanism and cities should be established with a focus on health. The cholera epidemics in the 1800s, the quality of housing in the working-class areas, malnutrition, environmental pollution, and the inadequacy of the sewerage systems have turned life in the city into chaos. Many people have died from preventable diseases. Edwin Chadwick's report, published in 1842, formed the basis of the 1848 Public Health Act for London. The main reason for the adoption of this law was that the cholera epidemic caused the death of people regardless of class (Erdoğanaras , Çamur, Tamer, & Mercan, 2020).

Urban planning and public health are historically intertwined. Dr. John Snow investigated the cause of the cholera epidemic in London in 1854 and made a map of the cholera epidemic. John Snow played an important

role in the history of cholera by combining medical knowledge with spatial analysis methods. John Snow to prove that the cause of the cholera epidemic was caused by the water supply, Snow collected the cases in the settlement one by one, researched the information about the history of the patients, and mapped the data he obtained to find the source of the spread. It turned out that the cause of the cholera epidemic was caused by the pump in the corner of the street (19. Yüzyılda Salgın Hastalıklar Kentleri Nasıl Şekillendirdi?).

Planners such as Frederick Law Olmsted had focused on the impact of land planning on physical and mental health in the 1800s (Jackson, 2001).

COVID-19, which has been experienced all over the world, has once again revealed the importance of public health. Urban planning shapes the physical environment, which is one of the physical and social factors which decisively affect the nature of urban health. Since the physical environment will also determine the social environment, Urban planning is an important discipline that will strengthen the infrastructure that will form the basis of public health.

In order to ensure physical, mental, and social well-being, land use in cities should be handled in a way that takes into account economic development along with transportation, open space, green space, housing planning. Because land use plays an important role in a physical activity affecting public health. In this case, it shows that the basic principle of healthy land use planning is to ensure interdisciplinary, inter-institutional, and inter-sectoral cooperation. Collaboration is needed between public health professionals and planners, architects, landscape architects, urban designers and civil engineers, and other related industries. Those outside the field of health should be aware of the health effect of their acts, and those working in health should perceive the meaning of the planning actions (Report to the World Health Organisation, 2009).

The environment has long been accepted as a key factor that decisively affects the nature or outcome of health (Marc, 1981); (Whitehead & Dahlgren, 1991); (Social Determinants of Health, 2006).

The environment is an environment that determines the development of all living things and their interaction with each other. All factors of physical, chemical, biological, and sociological nature that affect the lives of all living things, including humans, affect the environment. A healthy environment is created when all factors that adversely affect health are eliminated. Environmental health constitutes an important part of public health. By improving the sanitation of the environment, controlling communicable diseases, providing personal hygiene education to individuals, arrangement medicinal and nursing labors to ensure early diagnostic and cure of illnesses, and growing a social environment that will allow each individual to lead a healthy life; It is a science and art that protects people from diseases, prolongs their life span, tries to increase their physical and mental health, and provides these services to every citizen as an innate right to health and life by carrying out organized social work (The Future of Public Health, 1988).

The main purpose of Public Health is to protect human health and prevent diseases (WHO Europe, 2011).

Public health is vital for everyone living in cities. Interest in public health and planning issues has recently begun to increase. There has been a recent increase in research analyzing the effect of the physical environment on human health in particular (Frumkin, 2003).

The impact of the physical environment on public health is important. Therefore, Urban planning should be done by taking into account the relationship between the physical environment and public health. However, most of today's applications are not like this (Handy, Boarnet, Ewing, & Killingsworth, 2002).

While some of the research on Health and Planning has focused on health outcomes (Halpern, 1995); (Westphal, 2000) others have focused on planning.

Sustainability is to increase the quality of life by planning livable spaces for future generations by addressing social, environmental, and economic issues in a coordinated manner. The increasing importance of sustainability has encouraged city planners to reflect on the fact that the quality of life in cities should be ensured to include health issues. The World Health Organization started studies in cooperation with urban planners in 1998. One of the most important collaborative efforts is to publish the book Healthy Urban Planning-A WHO People's Planning Guide (The World Health Report, 2003).

It emphasizes the importance of health as the focal point of urban planning studies. Identify the role of planners in the environmental, social, and economic determinants of public health. Explain the relationship between the healthy cities movement and city planners. It emphasizes the principles of equality, sustainability, public and private sector cooperation. The World Health Organization has adopted 12 key health goals for planners.

Supporting healthy lifestyles (especially regular exercise). The decrease in daily walking and cycling leads to a raised risk of obesity, diabetes, and cardiovascular disease. Establishing social networks that facilitate and support social cohesion, provide reach to the quality house, facilitate reach to working opportunities, promote reach to quality resources (education, culture, entertainment, health services), create sales points for healthy food by promoting local food production, ensure safety, promote equality, plan spaces with admissible sound grades and well air quality, ensure water quality and sanitation, promote the protection and quality of land and mineral sources, and take measures to reduce emissions that adversely affect microclimatic conditions. These accepted health goals are in near parallel with the 12th goal of sustainable development. Various factors such as genetics and individual behaviors, socio-economic status, physical environment, and climate change affect human health.

In times of universal urbanization, the increase of non-communicable diseases (NCDs), and fast climate change, research has determined a set of urban planning principles needed to deliver human health and well-being results (Hugh, 2009).

Today, urban management models and urban policies are being developed in an integrated manner in order to achieve sustainable development at both national and international levels. For this reason, the role of the relationship between planning and land use has begun to become evident. Since the 1990s, the World Health Organization has focused on research between public health and planning. United Nations Sustainable Development Goal (SDG) 11 targets to do cities and human settlements inclusive, safe, resilient, and sustainable. Other Sustainable Development Goals also aim to promote public health improvements in cities. Most of the Sustainable Development Goals are closely related to a predominant urban design and planning and the urban level (UN, 2015)). United Nations Habitat III's New Urban Agenda also requires rethinking the way we build, manage and live cities, re-emphasizing a commitment to sustainability (New Urban Agenda, 2016)

Urban planning is seen as a keyway to promote health and well-being. Equivalently, human health, well-being and quality of life are seen as the main objectives of Urban planning. An ideal health integrated planning system has five basic elements. The first of these is to ensure relating to more than one department and inter-agency cooperation so that health-related effects can be discovered appropriately, and integrated resolutions can be followed between corporate responsibilities. The second is a coherent touch and strong political support that helps provide the resources required. Third, to place health at the center of planning by addressing health in coordination with environmental, social, and economic issues in the main statements about transportation, housing and economic development in land use planning. Fourth, ensure the active participation of people who live somewhere permanently or on a long-term basis, stakeholders in the private, public, and voluntary sectors in the policy process. Such as health effect evaluation, strategic sustainability evaluation, and urban studies (Barton, Grant, Mitcham, & Tsourou, 2009).

3. CONCLUSION

The concept of a healthy city is a concept that includes many different disciplines such as sociology, urban geography, health, urban planning, ecology, economy, and politics. Healthy urban planning, on the other hand, is based on the understanding of planning by taking into account the various factors in the concept of a healthy city. International and national attempts are growing to improve and support healthy urban design. The World Health Organization provides a good basis for the implementation of planning that supports human health and well-being by working on 'healthy cities', Urban planning for healthy and sustainable development, sociable determinants for health equity in urban spaces, or house and health. Spaces that will maximize accessibility by public transportation other than private vehicles and reduce the need for private motorized transportation in

general should be planned. Cities with less carbon intensity should be created and aimed at achieving better local air quality. Open lands must be found within or adjoining to urban spaces to provide more water in times of flood, which may occur due to climate change or other reasons. In normal periods, like these spaces function as parks or green spaces. Noise must be taken into attention detail both planning and at the project level. Urban planning should determine spaces of greatest conflict, such as transport corridors, and propose remedial measures whenever possible.

The physical and social environments in which people live and their lifestyles are the main determinants of health. Therefore, cities have a special potential to make better the health conditions of their residents. In this context, one of the important duties of local governments is to develop public health policies by considering all the requirements of urban life. Smart cities and ecological cities that offer different opportunities by being defined as the cities of the future. In addition to embodying basic and common characteristics within the framework of sustainable planning and design principles, it also expresses approaches that have different focal points specific to them (Varol & Öksüz, 2021).

The quality of the urban structure is a basis for human health. The quality of life of people is an indicator of the outward expression of their interaction with an environment that has the qualities of being healthy, community health, and meeting the needs of the individual. This outward expression is closely related to the increasing quality of life of the individual making him/her peaceful and happy and its satisfaction in the hierarchy of needs belonging to a healthy urban life. An individual's quality of life, peace, and happiness are not independent of urban peace and quality of life but are in constant interaction. Being a healthy city plays a major role in improving the quality of urban life. Health concerns everything that affects human existence, including all urban life. This does not require public health professionals to be experts in urban planning. However, public health experts should cooperate with planners and designers working on urban planning that positively affects life physically, mentally, and socially. Correctly designed environments have a positive impact on human health. Adequate areas for bodily movements should be provided in cities, public services should be distributed equally and fairly, adequate and accessible green spaces should be planned. Comprehensive planning is needed for healthier cities. As the fundamental standards for healthy urban living situations are gradually explored and determined, the physical environment may be developed accordingly by incorporating these standards into the urban planning process. There are many good-documented relationships between physical environment and health (both at the individual and community level).

The relationship between the physical environment and human behavior emerges in two ways. In the reciprocal relationship between the physical environment and human behavior, our lifestyle, such as the amount of energy we consume, the products we buy, affects the environment. At the same time, the environment we live in affects our health both physically and mentally (Kutlu, 2018).

Air pollution, noise, unqualified housing in cities affect public health negatively. The effects of floods and overflows on human health are great. Evidence of epidemics and communicable diseases has revealed that floods and overflows cause various diseases. Urban planning facilitates sustainable energy production and consumption. It not only provides economic benefits, but also contributes to public health by improving the housing conditions and playing a positive role in the improvement of microclimatic conditions (Report to the World Health Organisation, 2009).

A healthy approach in urban planning gives more appropriate answers to the plans to be made within the framework of sustainable development because the goal in a healthy city is a healthy economy, a healthy environment, and a healthy society. Achieving the Healthy City goal requires a clear focus on health needs and health goals in terms of urban planning (Başaran, 2007).

Urban planning has the potential to eliminate inequalities in health by positively affecting public health physically, mentally, and socially. According to the results of the Urban Environment Thematic Strategy prepared by the World Health Organization, intersectoral cooperation should be ensured. Public health professionals should work with city planners and other industry representatives. City residents should also be involved in this cooperation process. Considering the social, economic, and environmental conflicts caused by the interactions

between public health and the city, an approach that will ensure the integration between Urban planning and public health has become mandatory. More work is needed to develop existing methods and tools for healthy urban planning, to evaluate and monitor projects and programs.

REFERENCES

Barton, H., Grant, M., Mitcham, C., & Tsourou, C. (2009). Healthy urban planning in European cities. *Health Promotion International*, 24 (1), 191-199.

Başaran, İ. (2007). Sağlıklı Kentler Kavramının Gelişiminde Sağlıklı Kentler Projesi. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 9 (3), 207-229.

<https://www.acarindex.com/dosyalar/makale/acarindex-1423876316.pdf>.

Erdoğanaras , F., Çamur, K., Tamer, N. G., & Mercan, K. (2020). COVID-19, mahalle, müşterekler, kentsel yaşam ve halk sağlığı, *Türk Coğrafya Dergisi*, 76, 115-128.

Frumkin, H. (2003). Healthy Places: Exploring the Evidence. *Am J Public Health*, 93 (9), 1451–1456.

Halpern, D. (1995). *Mental Health and The Built Environment*. Routledge.

Handy, S., Boarnet, M., Ewing, R., & Killingsworth, R. (2002). How the built environment affects physical activity: views from urban planning. *Am J Prev Med*, 23 (2), 64-73.

Hugh, B. (2009). Land use planning and health and well-being. *Land Use Policy*, 115-123.

Jackson, R. (2001). *WHAT OLMSTED KNEW*. <https://www.asla.org/ContentDetail.aspx?id=13964>.

Kahya, E., & Öner, M. (2007). *Biyoloji Trahi / İlk Uygarıklardan On Dokuzuncu Yüzyıla*. Ankara: İmge Kitabevi.

Kutlu, R. (2018). Çevresel faktörlerin mekan kalitesi ve İnsan sağlığına etkileri. *The Turkish Online Journal of Design, Art and Communication - TOJDAC*, 8 (1), 67-78.

Marc, L. (1981). *A New Perspective on the Health of Canadians*. *Healthy and Welfare Canada*. Canada: Minister of Supply and Services.

New Urban Agenda. (2016). <http://uploads.habitat3.org/hb3/NUA-English.pdf>

Report to the World Health Organisation (2009).

https://isocarp.org/app/uploads/2014/08/WHO_report_final_version.pdf

Social Determinants of Health (2006). Social Determinants of Health 2nd Edition M Marmot

(tarih yok). 19. Yüzyılda Salgın Hastalıklar Kentleri Nasıl Şekillendirdi? <https://www.arkitera.com/gorus/19-yuzyilda-salgın-hastalıklar-kentleri-nasil-sekillendirdi-ii/>

The Future of Public Health (1988). <https://www.ncbi.nlm.nih.gov/books/NBK218218/>

The World Health Report (2003). https://www.who.int/whr/2003/en/whr03_en.pdf

Tekeli, İ. (n.d). Dünyanın salgınlar ve kentler sarmalında geldiği nokta; COVID-19.

<https://ilhantekelivakfi.org/wp-content/uploads/2020/05/Kent-ve-Salg%C4%B1n-Hastal%C4%B1klar-Covid-19.pdf>

Varol, E., & Öksüz, A. M. (2021). *idealkent Kent Araştırmaları Dergisi*, 34 (12), 1559-1582.

Westphal, J. (2000). *Designing Healthy Cities: Prescriptions, Principles, and Practice*: Joseph Aicher, Krieger Publishing Co., 1998. *Landscape and Urban Planning*, 49 (3-4), 191-192.

Whitehead, M., & Dahlgren, G. (1991). What can we do about inequalities in health? *Lancet*, 338, 1059– 1063 .

WHO Europe (2011).

<https://www.euro.who.int/en/health-topics/Health-systems/public-health-services>

FUTURE-PAST CITIES: HOW 20TH CENTURY CINEMA ENVISIONED TODAY'S CITIES

TÜRKAN NİHAN HACİÖMEROĞLU

Asst. Prof. Dr., Eskişehir Osmangazi University

ABSTRACT

Even though we have not lived through the first quarter of the 21st century yet, it already seems to create major shifts in the history of humanity due to worldwide political, economic, technological, and climate changes. These constant changes in the new millennium affect everything at an unstoppable speed, including the cities. Many different factors cause the transformation of a city. Unless there is a major destructive event like a war or a disaster, understanding the changes in the city and answering the question of the effectiveness of the city planning and execution takes a long time. Fortunately, the cinema is a great platform to create and transform cities reasonably quickly. Cinema is the ultimate source for creative and experimental works for cities and architecture. Besides disasters and wars, cinema creates whole cities based on ideologies, technological developments, major climate changes, unseen invasions, etc.

This paper aims to study science fiction movies produced in the 20th century but set in the late 20th early 21st centuries and analyse how different factors such as ideology, economy, climate change, and social shifts affect and transform the city of "today". More than ten movies such as *Just Imagine* (1930) set in the 1980s, *Metropolis* (1927) set in 2026s, *Soylent Green* (1973) set in 2022s, *Escape From New York* (1981) set in 1997s, *1984* (the book is written in 1948, published in 1949 and the first adapted movie was produced in 1956) set in 1984, *Brazil* (1985) set in somewhere in 20th century in its own words and similarly *Equilibrium* (2002) set in a not so far future, are selected based on their production and future projection dates and narratives relation to the city.

The study on the narratives of these movies reveals the backstories and factors that cause the significant transformations in the cities, such as nuclear wars, changes in ideologies, sudden and prolonged epidemics and pandemics, economic decline, climate change, social injustice, uncontrolled growth of human population, mass-production and mass-consumer cultures. Finally, these factors are cross-examined with the city forms, dynamics of the cities, and daily life shown in the movies. Then a comparative analysis is done between imaginary "today or near future" cities and real cities of today. In the end, results show several worryingly accurate predictions that envision the cities in catastrophic scenarios in the near future.

INTRODUCTION

Even though we have not lived through the first quarter of the 21st century yet, it already seems to create major shifts in the history of humanity due to worldwide political, economic, technological, and climate changes. These constant changes in the new millennium affect everything at an unstoppable speed, including the cities. Many different factors cause the transformation of a city. Unless there is a major destructive event like a war or a disaster, understanding the changes in the city and answering the question of the effectiveness of the city planning and execution takes a long time. Fortunately, the cinema is a great platform to create and transform cities reasonably quickly. Cinema is the ultimate source for creative and experimental works for cities and architecture. Andres Janser writes about architects such as Le Corbusier and Gideon looking at cinema for the conceptualization of ideas in a new way. (Janser, 1997, p. 34) Akçay also talks about the representative power of architecture since 19th century. According to her:

“Since 19th century, cinema has been the most effective visual art form in order to reach the realm of the audiences, societies. After the industrial revolution the everyday life changed within terms of the city and culture notions. In this era as city became an object for mass production; cinematic images and spaces became representations of everyday life with their communicative power; that can reach all through the world with one moving image.” (Akçay, 2016, p. 3)

For this study science fiction movies that are set in the future are analysed. From the list the movies set in the late 20th and early 21st century up to 2030s are selected. These dates are defined in order to be able to compare imaginary future cities with already existing cities of today. There are only two exceptions that envision a life further than 2020s. *Twelve Monkeys* (1995) that is set in 2035 and *Things to Come* (1936) that is set in 2036 and 2054 are added to the list. Some of the movies in the list are adaptations from science fiction novels. Most of them are defined as loosely based on the novels but for the sake of the study only the movies produced within the first 15 year of the books publishing date are chosen for the case study. The reason behind this is to make sure the ideas and visions behind the images of cities in the movies do not come from completely different cultural, social and political backgrounds. The selected thirty-five movies start with Fritz Lang's *Metropolis* (1927) and ends with *Geostorm* (2017). Future visions start from 1940s till 2029 with two exceptions from 2030s. Then after a general look at the films' city visions nine movies are selected for further analysis. Five of these movies set approximately 50 years in the future. They will be the main focus group for this study. Selected movies are *Metropolis* (1927) is set in 2026, *Just Imagine* (1930) is set in 1980, *Things to Come* (1936) is set in 1940-2036-2054, *1984* (1956) is set in 1984, *Soylent Green* (1973) is set in 2022, *Blade Runner* (1982) is set in 2019, *Brazil* (1985) is set in somewhere in the 20th century, *Freejack* (1992) is set in 2009 and *Equilibrium* (2002) is set in not so far future.

SCIENCE FICTION MOVIES IMAGINING TODAY

Since the invention of movie camera fantasy and science fiction genres have become an important part of cinema culture maybe even more than literature. Especially science fiction movies with subgenres such as utopia, dystopia, post apocalyptic, etc. are mainly criticism towards their time with possible future results of our actions in real life. With the inclusion of adaptations (since the science fiction novels have even wider audience and time span) they reflect the problems of the society sometimes openly and sometimes subtly. So they project imagery in order to reflect these problems and their outcomes. Cities and architecture in such movies are not mere background decorations but they are spaces designed with very specific purposes. Sometimes they become one of the main characters of the movie. Imagining and creating scenarios for the future is not very different from research on imagining future of the cities. Worldbuilding process in science fiction narratives is very similar to research on future studies. In their book *Imagining the future city: London 2062*, Bell and Paskins tries to group city elements and work on each of them by doing research and workshops. Main groups are connections, things,

power and dreams, which come with several under titles referencing to city elements both tangible and intangible. (Bell and Paskins, 2013)

The analysis made from the chosen thirty-five movies shows that each movie is directly affected from the current political and social climate of their time. Main plots in earlier movies such as *Metropolis* (1927), *Just Imagine* (1930), *Things to Come* (1936, loosely based on H.G. Wells' novel *The Shape of Things to Come* published in 1933) and *1984* (1984, based on George Orwell's novel *1984* published in 1948) that are written and shot during world wars, mostly reflects catastrophic wars that leaves the world in a devastated state, major changes in ideologies, totalitarian governments, class hierarchy, segregation and social injustice. Closer to 60s, 70s and up until 90s cold war and nuclear fears mirrors itself in the movie plots as well as space travel. A big amount of post apocalyptic, dystopian movies were shot those days. Over-population and ecological disaster plots leisurely started around 70s, and supported with mass-production and mass-consumer cultures continued through 90s up until today. 80s and 90s see the beginning of alien invasion, outer space habitation, artificial intelligence, as well as the end of humanity caused by pandemics and environmental disasters such as climate change, radiation, lab made viruses etc. Of course when we look in detail many of the movies from different times share similar subgenres or subjects. These generalizations are based on the density of the subjects in movies with close production dates.

The affect of these events on the city and architecture can be grouped into four. The first one is near or complete destruction of cities mostly because of wars, nuclear or environmental disasters. In these movies either the survivors continue to live in ruins or return to more primitive settlements such as *Children of Men* (2006), *Postman* (1997) and *Warriors of the Wasteland* ((1983). The second one is the creation of new cities based on the new ideologies and technologies such as *Equilibrium* (2002) or *Things To Come* (1936) mostly on or near the ruins of the old ones. The third one is the uncontrollably growing cities mostly rise to immense heights such as *Metropolis* (1927), *Just Imagine* (1930) and *Blade Runner* (1982), which are generally supported with flying transportation. The vertical growth in these movies mostly represents class hierarchies. (Haciömeroğlu, 2008) The fourth one is cities and architecture with no major transformations such as *A Clockwork Orange* (1971), *Soylent Green* (1973), *Escape from New York* (1981), *Back to the Future II* (1989) and *Bicentennial Man* (1999). These movies include high-rise buildings and new technologies but they are neither too futuristic nor plausible for their time.

THE REASONS BEHIND THE CHANGES

The analysis up to this point shows that in earlier movies one of the major changes in the cities happen because of ideologies. The ideologies of "the ruling class" vary, from science based to political and economical. Recent movies mostly address the affect of consumer capitalism, exploitation of natural resources and social media on society and the city. At first look, the ideologies, plots and cityscapes seem similar in *Metropolis* (1927) set in 2026 and *Just Imagine* (1930) set in 1980. While *Metropolis* (1927) has a direct criticism towards mass consumerism and class hierarchy between the wealthy industrialist and workers, *Just Imagine* (1930) depicts a future where people are identified with letters and numbers, can not choose who to marry and live under strict government control ruled by a scientists. Both cityscapes are visualised with high-rise buildings (more than 100 floors up to 250-300), bridges and multi layered transportation systems. Both movies imagine flying transportation vehicles although *Just Imagine* creates and uses them as personal carriers in place of cars. The city of *Metropolis* has a very clear upper side and lower side divisions where the upper side has natural light; air, parks, and big houses where lower city is basically underground settlement with minimum comfort for its dwellers. In *Just Imagine* there are certain differences between the spaces of people from different classes but the city is less dense than *Metropolis* even though it seems higher. In *Just Imagine* everybody can use the city but in *Metropolis* lower classes are expected to stay underground, going hungry. In *Just Imagine* peoples identities and feelings are frowned upon but mostly treated well, while in *Metropolis* people keep their individuality but has no freedom and not much of a chance to escape their birth faith. The city itself reflects this

dilemma. From lower class to higher class one has to go up, from dark to light, from dirty to clean, from industrial to natural, from absence to abundance. The contradicting imagery of both sides of the city is quite clear, both in morphology, colour and other urban aspects.

When comparing their visions with today's cities there are more similarities than expected since they are produced more than 90 years ago. The urban density and the inclination to go higher can be easily matched to many cities of today as well as the cities of 1980s such as Hong Kong, Tokyo and New York. There are now high-rise buildings up to 160 floors. The visions on mass houses and dense populations bear strong resemblance to today's way of living. Montane Mansion in Quarry Bay, Hong Kong seems a more detailed model of what Metropolis imagined for its inhabitants. Or the skyline of Tokyo can easily be a set for *Just Imagine*. The night scene of cities in *Blade Runner* (1982), which is set in 2019, can also be photo from Singapore or Shenzhen.

Citywide transportation systems also have similarities. Even though they are not as dense and high as depicted in these movies, Huangjuewan Interchange in Chongqing, China is 37 meters tall, has 5 levels and connects more than 15 ramps. Similar multi layered roads and transportation systems can also be seen in cities of USA, United Arab Emirates and all over the world.

The main ideas behind these changes also reflected in their designated futures. Metropolis bases its city imagery with class divisions and wealth. The access to nature, clean air, water, healthy food and overall better living conditions as well as leisure time in contrast with lower classes underground living conditions have many similarities to today's world. Pandemic clearly showed the differences between different income groups the ability to access many basic needs and how they are affected from it. Working class continued to work through out the pandemic, with worse conditions and risks than before in order to service upper classes with economical means and opportunities for healthier conditions.

Unfortunately many movies of these era misses the mark by imagines air transportation for personal use such as flying cars or personal planes which are not as widely used as imagined today neither does the bridges between 250 floor tall buildings for pedestrian or high tech public transportation.

The 1936 movie *Things to Come* approaches similar issues from a different perspective for the years 1936 till 1954s. After the collapse of civilizations on earth by continuous wars, savage groups continue to fight each other for basic needs. But in time a society with technocratic government takes control. A high technology, peaceful and ideal life is created underground in which people pay the price with their individuality and freedom. Movies that imagine an underground life are not rare. But the visions are still mostly unmatched in the real world. Based on the possibility of nuclear wars or major climate changes pushes people to look for alternative or emergency solutions. Underground bunkers for military, research facilities, mining and energy facilities, warehouses for safekeeping art works, economical data, dangerous weaponry and emergency bunkers for natural disasters such as tornados are common. But a whole underground city for a great number of people to live forever is not feasible or preferable yet. Of course there are ancient underground cities such as Derinkuyu in Capadocia Turkey, underground transportation systems especially used in wars to escape bombs, or various underground systems in Europe, USA, Asia etc.

Besides from being an underground settling *Things to Come* (1936) also depicts the beginnings of smart cities. When there were no such descriptions or technologies the movie envisioned a sustainable smart future. Today cities such as Copenhagen, Oslo, London, Barcelona, Tokyo, Dubai, Abu Dhabi is spending vast amount of money in order to create sustainable, techno based, smart cities.

It can be said that depiction of over population and reasons behind them are recurring subjects in science fiction movies and are mostly in par with real world. One of the prime examples of that is *Soylent Green* (1973), which is set in 2022. The movie imagines an overpopulated world, fighting with hunger, access to basic needs, pollution, and security. The city imagery is not futuristic but its vision of over population and its problems are on point. People trying to live in every corner of the city, on staircases, piled in small spaces can only access to quality

food if they are lucky enough to survive the crowd fighting for governments limited green pills. Living healthy and comfortable lives are exclusive for the wealthy and the rest of the population are encouraged to take their own lives. Today's situation may not be exactly the same but over crowded cities in India, China, Japan and Brazil face similar problems. Especially during the pandemic over crowded cities hit worse. All discussions on healthy urban planning have to deal with crowd problems.

Similarly climate change and the exploitation of earth's natural resources result in movies with wastelands, water wars, fight for survival. *Freejack* (1992) imagines a world in 2009 where people are dying because of bad conditions and start to steal healthy bodies of people from past times by traveling in time. Today we are not so advanced but many people choose to relocate from major cities for health reasons.

These issues coupled with mass consumerism, social media and technology results in many plausible future scenarios in movies such as *Brazil* (1985) and *Blade Runner* (1982). Especially the latter is accepted as one of the pioneers in the discussion of artificial intelligence and its place in society.

There are also many movies discuss the affects of possible changes in ideologies such as *1984* (1956), *Brazil* (1985) and *Equilibrium* (2002). Each movie has a different take on ideologies mostly influenced by the current situation of their times, but in the end reach very similar concerns. They imagine totalitarian societies motivated with consumer culture, controlled by media and skillfully and forcefully ripped away from thinking, feelings, arts, books, individuality and freedom of choice. Not only the functioning of the societies but also imagery of the cities reflect the modern city of today. Media facades, social media craze, TV culture, cancelling, and politicization of basic human rights are foreseen in these movies.

CONCLUSION

The study on the narratives of the selected movies reveals the backstories and factors that cause the significant transformations in the cities, such as nuclear wars, changes in ideologies, sudden and prolonged epidemics and pandemics, economic decline, climate change, social injustice, uncontrolled growth of human population, mass-production and mass-consumer cultures. The fact that many of these movies are produced more than 50 years ago, their accurate predictions are worrying. It not only shows that the problems of our times are not sudden or unexpected. They were foreseen, they were planned and they were ignored. Recent changes in Eastern Europe and continuous wars in Middle East and Africa show that we are prone to sudden annihilation of our cities. The ignorance towards climate change, the exploitation of natural resources, dependency on certain technologies weakens the changes of humanities survival on earth. Our desire to control our environment reflects to our cities. This study shows that as imaginary as they are, science fiction movies based their futures on today's world. It is suggested that by looking further than today, new data collected from science fiction movies can suggest new approaches to the city for a better future.

REFERENCES

Akçay, A. 2016. " Captured Ideologies In Cinematic Spaces: Jacques Tati's Les Vacances De M. Hulot, Mon Oncle and Playtime as Case Studies". In *The Urban Gaze*. Leiden, The Netherlands: Brill. doi: https://doi.org/10.1163/9781848884533_002

Bell, S., & Paskins, J. (2013). *Imagining the future city: London 2062*. London: Ubiquity Press.

Hacıömeroğlu, T.N., 2008. *Reconstruction of Architectural Image in Science Fiction Cinema: A Case Study on New York*. [Master's Thesis, METU]. METU.

Shonfield, Katherine, 2000. The Use of Fiction to Interpret Architecture and Urban Space. *Journal of Architecture*. v.5, n.4, Winter.

Janser, A., 1997. Only Film Can Make the New Architecture Intelligible: Hans Richter's Die Neue Wohnung and the Early Documentary Film on Modern Architecture. In Francois Penz and Maureen Thomas. (eds.) *Cinema and Architecture: Melies, Mallet-Stevens, Multimedia*. BFI Publishing.

EVALUATION OF THE PERCEPTION OF URBAN QUALITY OF LIFE TRANSFORMED BY THE COVID-19 PANDEMIC IN THE SCOPE OF URBAN CONFIGURATION

GİZEM DERİNCİ, VESİLE ŞİMŞEKOĞLU

Gizem Derinci, Department of City and Regional Planning Konya Technical University

Vesile Şimşekoğlu, Department of City and Regional Planning Konya Technical University

ABSTRACT

Urban quality of life is a multidimensional concept that includes the research field of the discipline of urban planning, which states the satisfaction of the people with the physical, social, cultural and economic conditions in the environment they live in, is evaluated using objective and subjective criteria. It has been revealed by literature research that the urban quality of life affects the physical and mental health of the citizens. It changes under the influence of built environment features, urban policies and breaks that occur in the city. The Covid-19 pandemic, which has affected the whole world since 2019, has also been effective in changing the expectations of city residents from cities, the perception of quality of life, urban space usage habits and lifestyles. This research aims to reveal the transformation that has occurred in academic research on the urban quality of life and the perceptions of citizens regarding this issue with the Covid-19 pandemic. For this purpose, literature researches conducted before and during the pandemic were scanned with the keywords "satisfaction, life satisfaction, quality of life, livability, urban quality of life, urban life satisfaction" and "urban planning, city planning" using the SCOPUS database. With this method, the distribution of the studies in the database by years (1977-2022), how they deal with the issue and how the urban quality of life indicators used in the researches have changed, and the effect of the Covid-19 pandemic on the literature has been introduced. In addition, how urban users' perceptions of urban quality of life changed during the Covid-19 period were questioned through in-depth interviews with 30 randomly selected people in the city center of Ankara. In these interviews, the change in the perceptions of the users' urban quality of life, life satisfaction and the habits of using urban spaces were examined by asking questions. According to the results of the in-depth interviews, the living environment, health and general life satisfaction of the city users decreased; neighborhood relations satisfaction did not change; social interaction with family, friends and neighbors and frequency of participation in sociocultural activities decreased; It has been observed that the daily transportation mode and urban space types preferred by people have changed. According to the literature research results, it has been determined that 42.4% of the studies in the field of urban quality of life were carried out in the last 6 years (2022-2016), and 65.3% of them were carried out during the Covid-19 pandemic period (2022-2019). It is thought that this research will add a different dimension to the urban planning literature in terms of revealing the transformation caused by the Covid-19 pandemic in academic research on the quality of life and in the perceptions of urban users about the quality of their living environment.

KEYWORDS: Covid-19, Urban Quality of Life, Urban Life Satisfaction

INTRODUCTION

The Covid-19 pandemic, which emerged in Wuhan, China in December 2019, affected the whole world in a short time and caused great losses. The pandemic, in which approximately 6 million people lost their lives in two years, also caused a radical change in people's lifestyles and habits. Due to the pandemic, living habits have changed the most in cities where more than half of the world's population lives. Mandatory isolation measures taken by governments and local governments have also made it necessary to change the places and activities where people spend time. People who could spend time in all places of the city before the pandemic spent most of their time in the houses during the pandemic. Housing is basically a place that is used extensively outside of work and social activities and its main function is accommodation. During the pandemic period, this place has gained a function where business and social activities are also carried out. In the pandemic, the characteristics of the neighbourhood where the house is located have gained importance along with the house. It is thought that some of the physical and social characteristics of neighbourhoods and all places in general affect the effects of the pandemic on human health and welfare positively or negatively.

While the Covid-19 pandemic necessarily affects people's spatial preferences and living habits, being under the risk of contagion constantly and knowing this risk increases from time to time depending on the characteristics of the places has negatively affected the quality of life in general. In this process, a larger and more spacious housing environment, neighbourhoods that offer the opportunity to participate in social activities without being exposed to the risk of contamination, and cities where the density is less, and the pandemic process is better managed have ensured that the quality of life is less affected by the pandemic. Again, in this process, people; they participated in social life by using private cars rather than public transportation, going to indoor places less and visiting natural areas more often, trying to protect themselves from the pandemic. The space structuring, which has increased in importance with the Covid-19 pandemic, has provided better quality of life and health opportunities for people who spent the process in positive spaces.

Since the Covid-19 pandemic has not yet ended, empirical studies on the relationship between the pandemic and the city and quality of life are continuing. Therefore, the effects of the pandemic on the quality of urban life have not been proven by objective methods. However, as seen in the research hypothesis model in Figure 1.1, the Covid-19 outbreak is thought to be a breaking point affecting the quality of urban life at the scale of the city, neighbourhood, and housing. For this reason, to evaluate the effects of Covid-19 on urban habits, expectations of citizens from space, the city and quality of life; It will shed light on producing more prepared urban policies against pandemics and designing healthier and more livable urban spaces that are resistant to pandemics. This research aims to reveal the impact of the Covid-19 pandemic on the perception of the quality of life and urban habits of the citizens with the results of the literature research and in-depth interviews conducted in the city center of Ankara.

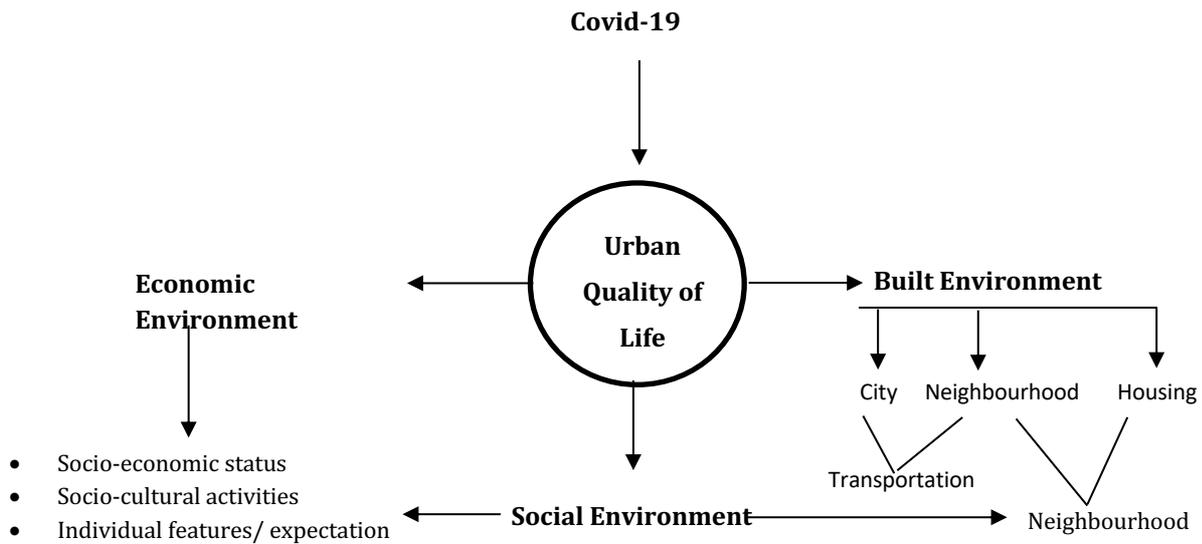


Figure 1.1. Hypothesis Model

Within the scope of the research, findings related to the Covid-19 pandemic and urban quality of life were obtained by using two main-stage methods. The first of these stages is the literature review on the subject, and the second is an in-depth interview to reveal the change in the perceptions of the quality of life and urban habits of the citizens before and during the pandemic. For the literature review, which constitutes the first stage of the method, studies examining the relationship between urban quality of life, livability and Covid-19 in the SCOPUS database were scanned in two stages. For this, an analysis was made on the keywords in the publications registered in the database. To identify the studies examining the relationship between urban quality of life and livability conducted before and during the pandemic; a literature review was conducted using the keywords “urban quality of life”, “urban satisfaction”, “livability”, “satisfaction of life”, “quality of life”, “satisfaction”, “urban planning” and “city planning”, “covid-19”, “pandemic”, “pandemic”, “covid”. For the in-depth interview, which constitutes the second stage of the method, in-depth interviews were conducted with 30 randomly selected people in the city center of Ankara (Kızılay-Ulus) in August-September 2021. Questions about changing habits and expectations were asked. The Covid-19 pandemic has changed the vital activities and habits in cities, restricted people's social activities and spatial preferences, and has generally negatively affected the quality of life. Housing, neighbourhoods, and cities where people spend their lives have also affected and changed people's perceptions of quality of life with the pandemic. In this study, after a short literature review, to examine the perception of the changing quality of life of people with the city, neighbourhood and residential areas during the Covid-19 period, the method description and the results of the research are given.

Literature Review

As a social being, people want to live in environments where they can realize themselves and be happier, as opposed to environments where only their basic needs are met. Every individual whose basic physiological needs are met desires to meet more needs in order to enjoy life. The higher the satisfaction of individuals in meeting their needs, the higher their quality of life will be. According to Abraham Maslow's Hierarchy of Needs (Figure 2.1), human needs consist of five basic steps; 1. physiological needs, 2. safety, 3. belonging, 4. esteem, 5. self-actualization (Olapegba, 2020). The basic philosophy of the Hierarchy of Needs, which represents the basic steps of a good life; It relates the realization of all steps after physiological needs, the satisfaction of life and the quality of life, belonging and trust towards society and the environment in which one lives.

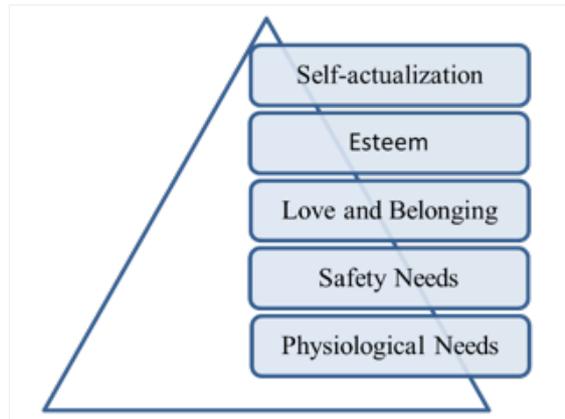


Figure 2.1. Abraham Maslow's Hierarchy of Needs (1943)

Quality of life is proportional to the level of fulfilment of people's needs and the level of satisfaction for these needs. Mulligan, Carruthers and Cahill (2004) defines the quality of life as the satisfaction that a person feels from the human and physical conditions around them, social and economic events. Quality of life, which is a multidisciplinary concept and evaluated by different disciplines using various scales, changes under the influence of many objective and subjective factors. One of these factors is space. According to Harvey Perloff (1969), the first researcher to emphasize the spatial dimension of quality of life, quality of life is "an element that can be determined by the interaction of the natural and built environment" (Hatipoğlu Şahin and Tereci, 2021; Perloff, 1969). In this sense, the places where we spend our lives have a significant impact on the quality of life. Quality of life is a concept that encompasses all aspects that affect individuals and societies. The sub-component of quality of life that deals with spatial characteristics is urban quality of life. Urban quality of life; It is the situation where the level of provision of urban infrastructure, communication, transportation, housing, and similar facilities is above the predetermined criteria in places that fall under the definition of city in terms of social, economic, and spatial elements. Livable spaces with a quality above the standards directly affect human perception and life. Ahu Ceylan (2007) summarizes the relationship between quality of life and space as follows: "Designing the spaces where we spend our lives in accordance with the users and increasing the physical quality of the space increases the quality of life by positively affecting the subjective evaluations of the users." (Ceylan, 2007). People's subjective evaluations of the quality of life are positively correlated with the livability of the space. In the United Nations Conference on Human Settlements, livability has been defined as "the phenomenon that refers to the spatial, social and environmental characteristics and quality that will contribute to the individual and collective well-being of a person and the satisfaction they will feel from being a resident of that settlement" (Belge, 2012; Habitat II, 1996). Accordingly, livable spaces that nourish the sense of satisfaction and satisfaction of the individual from the place people live in directly affect the quality of urban life.

The built environment unit that has the greatest impact on human life and quality of life is urban space. Today, 54% of the world's population lives in cities, and by 2050, it is estimated that 70% of this population will live in urban areas (UN-Habitat, 2016). For this reason, the impact area of cities is greater than rural settlements. The scales and forms of cities inevitably result in organizational forms that affect the daily lives of residents and therefore their well-being (Brown, Z. S., Oueslati, W., & Silva, J., 2016). Cities are lively and flexible settlements that change and develop under the influence of economy, demography, cultural and social structure, politics, and historical events. Cities bearing the traces of all periods of a society are also affected by global events. In addition to historical events such as the Industrial Revolution, which affected the whole world and caused changes in urbanization habits, global pandemics are also breaking and turning points for cities. In the past, infectious diseases such as cholera, plague and SARS have deeply affected life in cities. Because the dense cluster of people in cities causes cities to become vulnerable to infectious diseases (Florida, 2020). For this reason, it is thought that the Covid-19 pandemic, which was first identified in the last months of 2019 and continues to affect the whole world, affects the livability of cities and the perception of the quality of life of the citizens.

The Covid-19 pandemic has directly affected living spaces from urban scale to residential scale. However, people's lifestyles and habits have also changed. Because one of the factors that have an important effect on the spread of the virus is seen as the lifestyles of people (Florida, 2020). In almost all the world's countries, isolation decisions have been taken by governments and local governments to prevent people from leaving their homes during the pandemic. The social space understanding of the human being, who is a social being, their social relations, the type of transportation that frequently uses, the way of working, their shopping habits, etc. changed drastically during periods of pandemic and isolation. During the pandemic, when information and communication technologies became a part of life, people started to meet almost all their basic needs at home. Housing gained functions such as workplace, shopping area, socializing place during the pandemic period, rather than being a sheltering place, which was its main function before the pandemic. Since people spend more time in their homes than before, houses have come to the forefront with their increasing social function as well as their sheltering function. In this process, people's expectations from the house they live in have also changed to a great extent. For this reason, during the pandemic period, housing features affected people's quality of life, reducing, or increasing the negative effects of the pandemic. There are studies proving that housing features directly affect the quality of life. For example, a 2016 study in Ljubljana confirmed the impact of housing quality on quality of life; here, satisfaction with housing has a significantly higher explanatory power than satisfaction with living in the neighbourhood and city (Tiran, J., 2016). According to Kostas Mouratidis (2021a), who emphasized that the importance of housing features and conditions for the quality of life increased during the Covid-19 period, high-quality and well-maintained housing of sufficient size during the pandemic period was one of the factors that reduced the negative effects of Covid-19 on the quality of urban life (Mouratidis, 2021a) and in this process, the type of housing did not affect personal health and well-being, while the presence of green spaces around the housing positively affected health and welfare (Mouratidis, 2021b).

The livability of the neighbourhood, in other words, the neighbourhood where the house is located, as well as the housing unit, also affects the quality of life. Neighbourhood: It is the basic settlement unit where social relations are developed and daily needs are met. For this reason, neighbourhood characteristics have also been one of the factors that reduced or deepened the effects of the Covid-19 pandemic. The Covid-19 pandemic has necessarily changed people's spatial preferences. While before the pandemic, places with high human density and social mobility were preferred, during the pandemic period, people had to prefer places where the risk was quieter and less risky. While this situation increases the preferability of natural areas, parks and open areas, shopping malls, cafes, restaurants, cinemas, theatres, etc. This has resulted in less crowded places to visit. These areas, defined as third places, offer opportunities for residents to meet friends and relatives more often, as well as to make new friends or meet a new partner. As this will positively affect socialization, it also increases the quality of life (Mouratidis, 2018). The high density of green areas in the neighbourhood, the accessibility of health and social service units, the proximity of shopping areas and social-cultural areas to the housing unit provided an opportunity for people to move away from their homes for a short time during the pandemic and to keep their relations with the environment in this process. Brossoie and Burns (2020) stated that the residents of the neighbourhood who have easy access to green spaces and other common public spaces in the neighbourhood can maintain their social relations better and have more neighbourhood satisfaction in this process, compared to the residents of the neighbourhood with difficult access (Brossoie and Burns, 2020). At the same time, the population density of the neighbourhood was an important determinant of the increase or decrease in the risk of transmission and affected the livability level of the neighbourhood during the pandemic period. According to Mouratidis and Yiannakou (2022), proximity to major parks and local facilities and low neighbourhood density during the Covid-19 period reduced the negative effects of the pandemic and contributed to the improvement of the quality of life (Mouratidis and Yiannakou, 2022).

With its administrative, economic, social, cultural, demographic, and physical structure at the top scale, the city is the built environment unit that most affects the quality of life and livability. Cities: It has deeply affected the quality of life, social welfare and health during the Covid-19 period and continues to do so. In particular, the spatial characteristics of cities and the lifestyle of the citizens have been among the most important factors that

increase the risk of transmission in this process. Cities' characteristics; service and transportation infrastructure, housing and population density, air quality, etc.; have increased or decreased the pandemic burden. People who must use public transport and stay in traffic for a long time, especially on their way to work, have been directly affected by the pandemic. Again, in this period, people's urban habits have also changed to reduce the risk of transmission. For example, while the use of public transportation was more common before the pandemic, individual vehicle uses and automobile sales increased during the pandemic; It has been observed that natural and open spaces are visited more frequently than crowded places such as cafes, restaurants, and theatres. It has been determined that the number of pedestrians on shopping streets, especially in city centers (Ankara), has decreased by 50% (Derinci and Özüdü, 2020). In addition to these, in this process, while urban features affect health, welfare and quality of life; the Covid-19 pandemic also affected the resilience of the city due to its spatial characteristics. Some cities have become unable to bear the burden of the pandemic in terms of their characteristics, and local governments have taken isolation measures for cities.

In summary, the characteristics of cities directly affect the livability of the place and the quality of life in general. The importance of livable spaces and their contribution to the quality of life have been better understood with the Covid-19 pandemic that has been going on for more than two years. Every place with people, from the urban scale to the housing unit, directly affects our lifestyles, health, and well-being in ordinary and extraordinary times. The investigation of the effects of the Covid-19 period on the structure of cities and the quality of urban life, for which empirical studies are still ongoing and definitive evidence cannot be presented, constitutes an important basis for the preparation of new urban policies by considering the resistance to pandemics and for the urban planning discipline to act with these policies. In this context, in the next section, the effects of Covid-19 on the quality of urban life are revealed by giving place to the literature studies investigating the effects of the Covid-19 pandemic on the city and urban life quality, and the results of the in-depth interviews randomly selected among the city residents in the city center of Ankara.

METHODOLOGY

The method of the study consists of 2 stages in order to understand people's perception of the changing quality of life with Covid-19. First of all, studies on keywords in the field of life were examined in the SCOPUS database and then associated with Covid-19. These studies were examined in terms of content, and it was examined what changes the researchers observed in the quality of urban life with Covid-19. For this, a literature review was conducted using keywords; that are; "urban quality of life" OR "urban satisfaction of life" OR "livability" OR "satisfaction of life" OR "quality of life" OR "satisfaction" AND "urban planning" OR "city planning". Secondly, in order to identify studies investigating the relationship between urban quality of life and livability and Covid-19; "urban quality of life" OR "urban satisfaction of life" OR "livability" OR "satisfaction of life" OR "quality of life" OR "satisfaction" AND "covid 19" OR "pandemic" OR "pandemic" OR "covid" AND "urban planning" OR "city planning" a second search was conducted using the keywords. The main reason for this is to be able to select the studies on the subject and to examine their distribution according to years and to emphasize that the subject is a studied and constantly developing literature.

After examining the academic aspect of the subject, interviews were conducted between August and September 2021 with users who agreed to be interviewed among randomly selected people in Ankara city center (Ulus and Kızılay) with pre-prepared questions using structured in-depth interview technique to see the reflections in the society practically. As a result of the voluntary nature of the interviews and the continuation of the pandemic conditions, a total of 30 successful meetings were held. Although there is a number that cannot represent the entire population of Ankara, the results are meaningful and overlap with the results presented in the literature at some points. Conducting the interviews in the city center of Ankara has fundamentally different characteristics, for example, student, public employee, private sector employee, unemployed etc.; and depends on whether it's hosting users. Users, mostly residing in Çankaya district, were asked to evaluate their lifestyles,

habits, and quality of life perceptions during and before the Covid-19 pandemic period. For this purpose, in the in-depth interviews, questions were asked about their socio-economic status, their satisfaction with living spaces (neighbourhood and housing) and changes in their use, transportation preferences, changes in socio-cultural habits and especially urban expectations that emerged during the pandemic period. 80% of the interviewees, 57% male and 43% female, are between the ages of 18-34. One of the main reasons for this situation is that middle and middle-aged people refuse to make interviews and they are much less in the pedestrian density on the street. 80% of the interviewees have a bachelor's degree or higher education level, 73% of these people work in private and public institutions, and 27% are retired and unemployed. Before the pandemic, 73% of the employees continued to work during the pandemic period, and 18% of these people worked remotely, 18% flexible and 64% face-to-face. In addition, 10% of the interviewees see themselves from the lower income group, 20% from the middle-lower income group, 40% from the middle-income group, 27% from the middle-upper income group and 3% from the upper income group. Data regarding the results will be explained in detail under the heading of findings.

FINDINGS

Scopus scan

The result of the literature review has been graphed in graph 4.1. by using keywords; "Urban quality of life" OR "urban satisfaction of life" OR "livability" OR "satisfaction of life" OR "quality of life" OR "satisfaction" AND "urban planning" OR "city planning". According to this, the first study including the mentioned keywords was made in 1975. With the increase in sustainability studies and the understanding that cities are not just built environments, the quality-of-life literature continued to accelerate in the 1990s. The quality-of-life literature, which has become a subject studied by many different researchers and different disciplines in the 2000s, has been the most studied time with 344 studies between 2015-2019. However, the total number of studies conducted in 2020 and after shows that the increasing trend will continue with great momentum. Because in almost a 2-year period, more work has been done than half of the previous 5-year period.

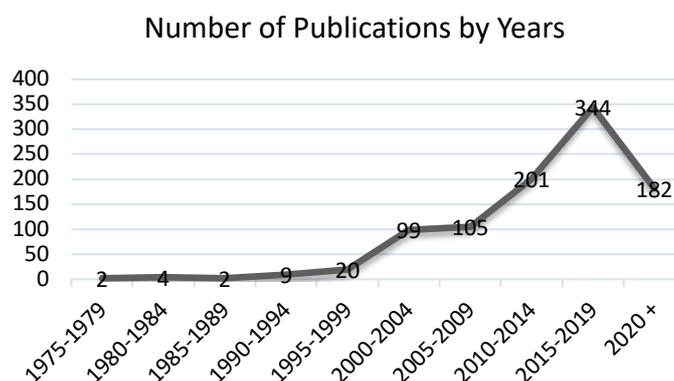


Figure 4.1. Number of publications in the Quality of Life field by years (SCOPUS)

In order to reach the studies investigating the relationship between the quality of urban life and livability and Covid-19 among all these researches; a second search was conducted using the keywords; that are; "urban quality of life" OR "urban satisfaction of life" OR "livability" OR "satisfaction of life" OR "quality of life" OR "satisfaction" AND "covid 19" OR "pandemic" OR "pandemic" OR "covid" AND "urban planning" OR "city planning". The result of this scan shows that a total of 11 studies have been conducted regarding Covid-19 and quality of life. Four of these studies are city planning as per the disciplines in which they are conducted. The details of these studies (name, author, year, keyword) are shown in Table 4.1. Current studies show that urban

life quality/livability is defined by the keyword's urban macroform, urban sprawl, built environment, resilience, well-being has been associated.

	Name of Article	Publishers	Year	Keywords
1	COVID-19 and the compact city: Implications for well-being and sustainable urban planning	Mouratidis K.	2022	Compact cities; Coronavirus disease (COVID-19) pandemic; Pandemic-resilient cities; Sustainable city planning; Urban sprawl; Urban sustainability
2	COVID-19 and urban planning: Built environment, health, and well-being in Greek cities before and during the pandemic	Mouratidis K. and Yiannakou A.	2022	City planning; Compact city; Coronavirus disease (COVID-19) pandemic; Quality of life; Subjective well-being; Urban built environment
3	How COVID-19 reshaped quality of life in cities: A synthesis and implications for urban planning	Mouratidis K.	2021	Built environment; Coronavirus disease (COVID-19) pandemic; Literature review; Livable cities; Subjective well-being; Urban social sustainability
4	A qualitative analysis of UK wetland visitor centres as a health resource	Reeves J.P., John C.H.D., Wood K.A., Maund P.R.	2021	Attention restoration; Biodiversity; Blue space; Connection to nature; Green space; Motivation; Pro-environmental behaviours; Relaxation; Spiritual wellbeing; Wildlife tourism
5	Smart city and crisis management: Lessons for the covid-19 pandemic	Hassankhani M., Alidadi M., Sharifi A., Azhdari A.	2021	Community well-being; COVID-19; Crisis management; Smart city; Urban resilience
6	Effects of urban parks on residents' expressed happiness before and during the COVID-19 pandemic	Cheng Y., Zhang J., Wei W., Zhao B.	2021	COVID-19; Health; Quality of life; social media; Subject well-being
7	Urban Sustainability Versus the Impact of Covid-19: A Madrid Case Study	Menéndez E.P., Higuera García E.	2020	COVID-19; public health; quality of life; sustainability; urban planning; viral disease

Table 4.1. Articles about Covid-19 and Urban Quality of Life /Livability

In-Depth Interviews

Face-to-face structured in-depth interviews were conducted with randomly selected interviewees in the city center of Ankara in August-September 2021. In order to understand the interviewees' satisfaction with the environment they live in and their perceptions of quality of life, questions about the characteristics of the housing and neighbourhood were asked. 40% of the interviewees who reported housing ownership at the rate of 57% have been living in the same house for more than 10 years and 77% of them report satisfaction with the house they live in. The characteristics affecting the housing satisfaction of the interviewees are summarized in Graph 4.2. According to the data in Graph 4.2, the features that most affect the interviewees' housing satisfaction are the old and worn-out house, the size of the house/number of rooms and the problem of parking.

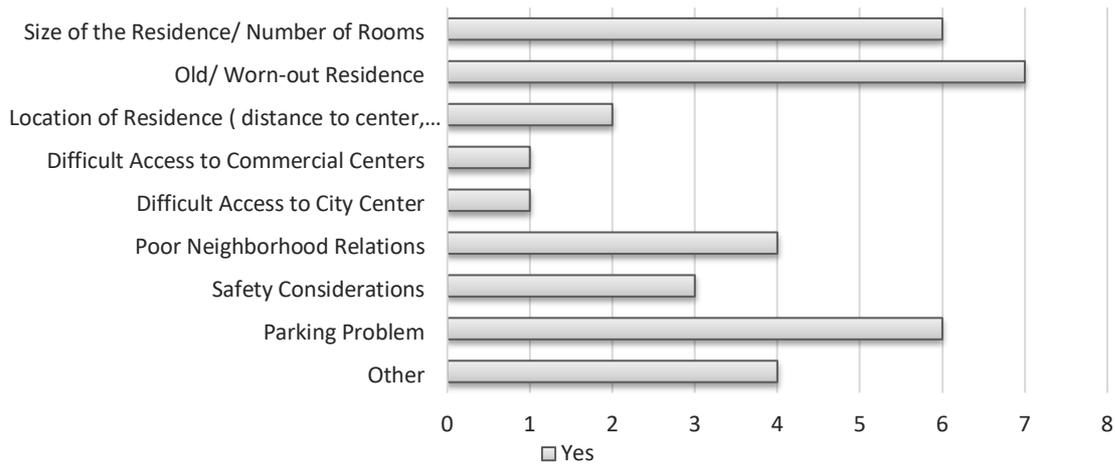


Figure 4.2. Properties that Affects Housing Satisfaction

Questions were asked to measure the satisfaction of the interviewees with the neighbourhood they lived in before and during the pandemic. According to the results in Figure 4.3, the average score of satisfaction with the neighbourhood before the pandemic was 4.1, while according to the results in Figure 4.4, the average satisfaction score was 3.9 in the pandemic. In addition, the average score of satisfaction of the interviewees with the neighbour relations in the neighbourhood was 2.6 before the pandemic, while the satisfaction with the neighbour relations after the pandemic was 2.4. It is thought that the fact that 73% of the interviewees do not know or know their neighbours very little affects the satisfaction of neighbourly relations negatively. In addition, the social relations of the interviewees with their close circles during the pandemic period and the frequency of their meetings; It is seen that it does not change for family and decreases for friends and neighbours.

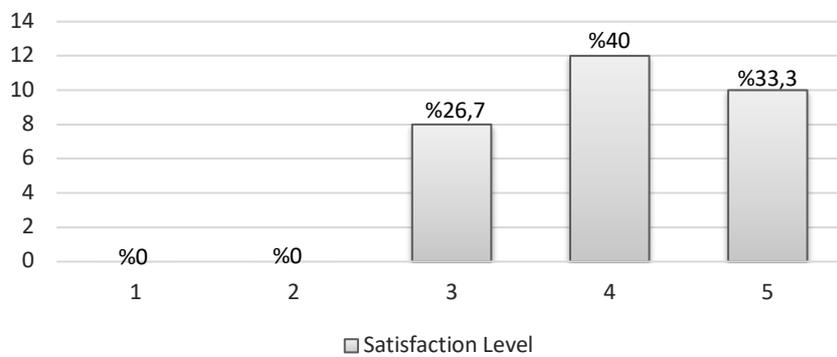


Figure 4.3. Satisfaction Level of Neighbourhood Before Pandemic

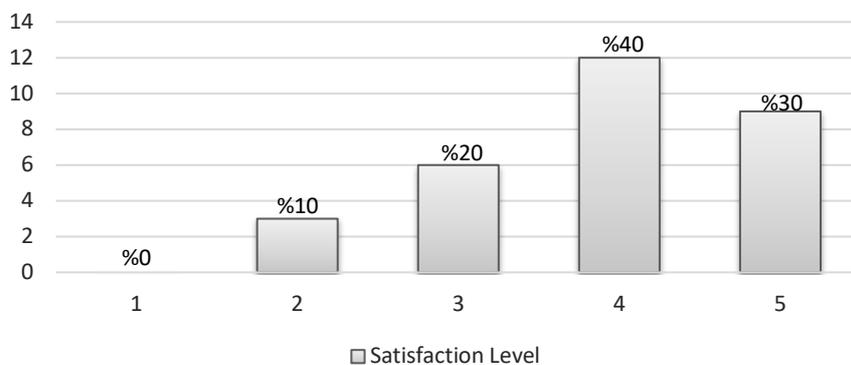


Figure 4.4 Satisfaction Level of Neighbourhood After Pandemic

To evaluate the effects of the built environment features on the perception of quality of life, the interviewees were asked questions about the physical environment characteristics of the neighbourhoods they live in, the frequency of use of the places they prefer, the mode of transportation used in daily travels, the frequency of participation in socio-cultural activities and their expectations from the city they live in. Most of the interviewees answered "I agree" to the statements "I find the neighbourhood I live in safe", "I can easily access open and green areas", "I can easily access shopping places" and "I find the public transportation types (metro, bus, minibus) sufficient"; It was revealed that most of the interviewees gave the answer "I do not agree" to the statements "There are places that provide ease of access for pedestrians, cyclists and disadvantaged groups (disabled, elderly, etc.)" and "I find the neighbourhood I live in to be of high quality and aesthetic in terms of architecture".

Statements	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
I think the neighbourhood is safe.					
I think there are walkable places.					
There are places that enables access to the pedestrians, bicycles, or disadvantageous people (handicapped, elderly, etc.) in the neighbourhood.					
I think there are enough open and green fields in the neighbourhood.					
I can easily access to open and green fields.					
I find the neighbourhood of good quality and aesthetical in an architectural aspect.					
I find the neighbourhood clean and well-kept.					
I think public services like; health services, education, sports complex are sufficient.					
I have an easy access to public services like, health, education etc..					
I have an easy access to shopping malls.					
I am satisfied with the air quality.					
I find the neighbourhood as too crowded and noisy.					
I think the traffic density is too high.					
I think there are sufficient types of public transportation (buses, metro, etc.).					

Table 4.2. Features of Physical Environment of Neighbourhood Results

In addition to the evaluation of the physical environment characteristics of the neighbourhood, the interviewees were also asked to indicate the physical environment characteristics that they felt lacking in the environment/city they lived in during the pandemic period. According to this, the characteristics that the

interviewees most lack are “Inaccessibility of natural areas (66.7%)”, “Insufficient open and green areas (53.3%)”, “Lack of walkable streets surrounded by trees around the housing (50%)” and “there was a lack of areas suitable for physical activity (50%)”. These results show that the desire to move away from dense urban areas and move in healthy open and clean areas during the pandemic period comes to the fore.

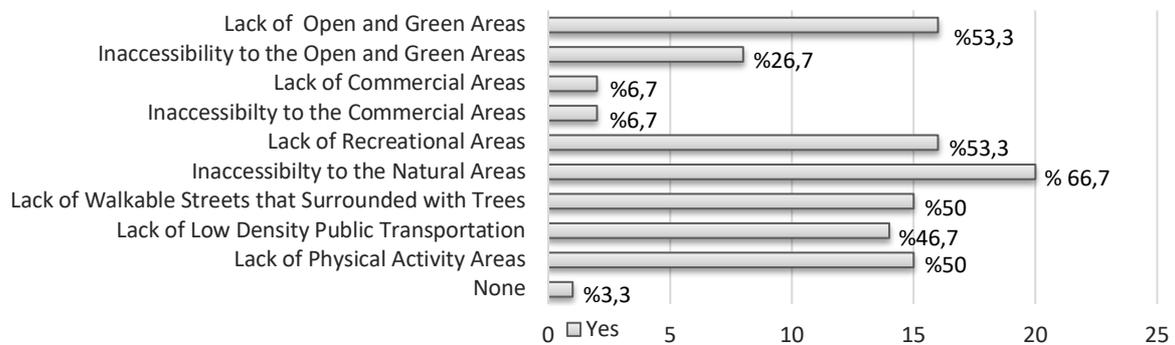


Figure 4.5. Physical environmental features that were noticed of lack during the pandemic period

The in-depth interview results show that the type of venue that the interviewees frequently visited before the pandemic changed during the pandemic period. The preference level of parks, gardens and natural areas has increased significantly during the pandemic period; the preference level of shopping malls, cafes and restaurants has decreased significantly; indoor sports hall and cinema, theatre, concert halls etc. It has been observed that the use of spaces has decreased. With the effect of the isolation measures taken during the pandemic period, the preferability of residential gardens has increased compared to the pre-pandemic period. During the pandemic period, a serious change has been observed in the frequency of participation in socio-cultural activities such as cinema, theatre, concert, and exhibition. While 66% of the interviewees stated that they frequently participated in socio-cultural activities before the pandemic, this rate was 27% during the pandemic period. In addition, while 7% of the interviewees stated that they had never participated in activities before the pandemic, this rate increased to 53% during the pandemic period.

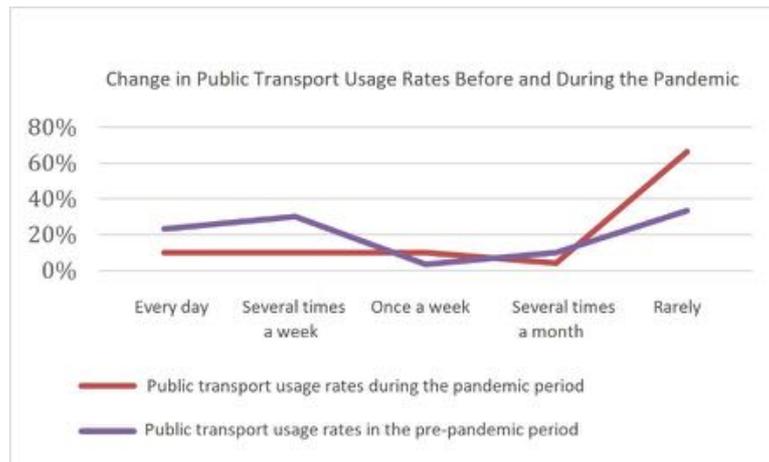


Figure 4.8. Change of the Public Transportation Usage Rate Before and During the Pandemic

Another variable that affects people's life satisfaction and urban quality of life is transportation. For this reason, questions were asked to understand the transportation decisions of the interviewees during and before the pandemic. Before the pandemic, 53% of the interviewees, of whom 70% owned a vehicle, used a private vehicle, while this rate increased to 80% during the pandemic period. While no change was observed in the rate of pedestrian trips during the pandemic period, there was a 20% decrease in the public transportation preferences of the interviewees. While the rate of those who use public transportation for daily trips was 23.3% before the pandemic, this rate was 10% during the pandemic period; While the rate of those who use it several times a week was 30% before the pandemic, this rate was 10% during the pandemic period; While the rate of those who rarely use it was 33% before the pandemic, this rate was 63% during the pandemic period. In summary, the preference rate of public transportation modes has decreased during the pandemic period, and the use of private vehicles has increased.

CONCLUSION AND RECOMMENDATIONS

The Covid-19 pandemic, which has been in our lives for the last two years, has directly affected people's lifestyles and standards. In this process, people's leisure activities, consumption habits, use of neighbourhood and residential areas, transportation preferences, working styles, etc. has changed. The first studies in the field of the relationship between Covid-19 and quality of life, which have just begun to develop in the literature, reveal results in this direction. In addition, the results of the in-depth interviews confirm that Covid-19 negatively affects the quality of life. Accordingly, the overall life satisfaction score average of the interviewees was 4.0 out of 5, while this average decreased to 2.8 during the pandemic period. This result depends on the general health status, economic situation, social relations of the people as well as the way they use the city they live in and their use of the urban spaces around them. The interviews show that the frequency of preference of the places used during the pandemic period and before the pandemic has changed to a large extent. For example, while shopping malls, cafes and restaurants were in the top 4 before the pandemic, parks, gardens, and natural areas were the most preferred places during the pandemic period. While the residential garden was the least preferred place before the pandemic, shopping malls, indoor sports halls, cinemas, theatres, and concert halls were the least preferred places during the pandemic period. However, the fact that the total number of interviewees was limited to 30 people and that most of the interviewees were in the 18-34 age group is an important limitation for the study. The main reason for this limitation is that people hesitate to use dense public spaces such as the city center during the pandemic period and it has become difficult to make face-to-face meetings in this period. Although this situation has made it difficult to reach people of all age groups, the findings of the interview are in line with the results in the literature. In addition, it is thought that the research findings will support future studies.

REFERENCES

- Belge, Z. (2012). *Increasing Walkability Capacity Of Historic City Centers: The Case Of Mersin*. Master Thesis. (Published), Middle East Technical University, Ankara, 288-290.
- Brossoie, N. and Burns, D. (2020). What Makes a City a Good Place to Live and Grow Old? *Journal of Applied Gerontology*, 2.
- Ceylan, A. (2007). *Yaşam Kalitesinin Artırılmasında Kentsel Yeşil Alanların Önemi ve Kentsel Dönüşüm ile İlişkilendirilmesi*. Master Thesis. (Published), İstanbul Technical University, İstanbul, 6.
- Hatipoğlu Şahin, H. and Tereci, A. (2021). Konut ve çevresi kavramına yaşam kalitesi bağlamındaki yaklaşımların değerlendirilmesi. *İdealkent*, 33(12), 856.
- Mouratidis, K. (2021a). How COVID-19 reshaped quality of life in cities: A synthesis and implications for urban planning. *Land Use Policy*, 111 (2021), 6-7.
- Mouratidis, K. (2021a). COVID-19 and the compact city: Implications for well-being and sustainable urban planning. *Science of the Total Environment*, 811 (2022), 9.
- Mouratidis, K. and Yiannakou, A. (2022). COVID-19 and urban planning: Built environment, health, and well-being in Greek cities before and during the pandemic. *Cities*, 121 (2022), 12-14.
- Mulligan, G., Carruthers, J. and Cahill, M. (2004). Urban quality of life and public policy: a survey. *Urban Dynamics and Growth*, 266(2004), 729.
- Olapegba, P. O. (2020). Place of happiness and subjective indicators of well-being in quality of life issues. *Nigerian Journal of Economic and Social Studies*, 62(1), 52.
- Florida, R. (2020 3 April). The Geography of Coronavirus. Bloomberg City Lab. Retrieved <https://www.bloomberg.com/news/articles/2020-04-03/what-we-know-about-density-and-covid-19-s-spread>
- Mouratidis, K. (2018). Built environment and social well-being: How does urban form affect social life and personal relationships?. *Cities*, 74, 7-20.
- UN-Habitat (2016), Habitat III Policy Paper Framework 8: Urban Ecology and Resilience, Quito, United Nations.
- Derinci, G. and Özüduru, B. (2020, November 5-8). Kentsel dirençlilik, kriz, kent merkezleri: Pandemi sürecinde kamusal alan kullanımının değişimi [Conferance presentaion]. 8 Kasım Dünya Şehircilik Günü 44. Kolokiyumu Kriz. Turkey, Online. <https://www.youtube.com/watch?v=7FXPm3dvexY>
- Brown, Z. S., Oueslati, W. and Silva, J. (2016). Links between urban structure and life satisfaction in a cross-section of OECD metro areas. *Ecological economics*, 129, 112-121.
- Tiran, J. (2016). Measuring urban quality of life: case study of Ljubljana. *Acta geographica Slovenica*, 56(1), 57-73.

AIRBNB, THE HOSTING PLATFORM THAT ENCOURAGED THE GENTRIFICATION AND TOURISTIFICATION PROCESS IN *SAN MIGUEL DE ALLENDE*, MEXICO.

JOCELYN ELIZABETH LIEVANOS DIAZ,

PhD in design, Autonomous University of the State of Mexico, Faculty of Architecture and Design.

ABSTRACT

With the arrival of Airbnb hosting platform, it has been strengthening the gentrification process among cities, because of this, it has been thought the following proposal. Analyze if the gentrification process within the touristic city San Miguel de Allende (SMA), which is considered heritage of humanity, was primarily due Airbnb hosting platform. It follows the PhD thesis "Gentrification in the touristic and heritage area of the city *San Miguel de Allende, Mexico*". The research is structured in a brief historical tour where Airbnb is incorporated within the dynamics of the heritage city, in addition to fieldwork to identify the dynamism of this service in the city, mapping on the location, cost and type of service offered (such as room, whole house, apartment, etc.), interview with various key factors such as: Airbnb hosts, hotel sector, guests, among others. Within the preliminary findings it is established that the dynamics of San Miguel de Allende is complex, as it presents a strong siege and real estate speculation, which is linked to Airbnb which is fully seen as a business, with minimal impact that contributes directly to the local also called "community economies", among other factors that have generated duality of positions and opinions.

KEYWORDS: gentrification, tourism, heritage, city, hosting platform.

INTRODUCTION

The investigation constitutes three essential parts (1) gentrification theory, which is related to the Airbnb hosting platform, (2) historical journey of the city SMA, which encompass a documental and historical analysis, fieldwork, mapping, interviews, among others, and finally, findings and conclusions.

Tourist gentrification has been consolidated worldwide, this is mainly due the creation and trend of digital platforms such as Airbnb, and its increase in hosting for short time periods. Cocola-Gant (2019) affirms this trend has a “Snowball effect” triggered by a collective relocation never seen before, in conventional gentrification of a residential lifestyle replaced by tourism.

Airbnb has become a “gentrification machine” in most of the mainly urban and metropolitan destinations. The relocation that Airbnb has carried is based on multiple factors, since the conversion of housing into home-stay accommodation results in important social changes, it also has an impact on relocation and migration of the own residents, lack of households, rise in prices; therefore, these factors increase the level of exclusion and reduce the possibility of new residents moving into. Together, the gentrification and Airbnb it can even generate the hypergentrification phenomenon (Gravari-Barbas, 2017).

TOURIST GENTRIFICATION AND THE AIRBNB PLATFORM IN SAN MIGUEL DE ALLENDE, MEXICO.

The research area is in Mexico, in the State of *Guanajuato*, in the Bajío region of the *San Miguel de Allende* town, in figure 1.



Figure 1.- Location of San Miguel de Allende, Mexico.

The city has passed through a social and urban transformation, as of the three historic moments marked by events with great impact within the city’s dynamic (Flores & Guerra, 2016).

In the first historic moment, in the 1940s, it was identified the arrival of American veterans and students to the *Instituto Allende* and later to the Fine Arts. These people were interested in art and got in through the GI Bill program.

The second historic moment occurred in the 1980s, during this period retired people and entrepreneurs, who were from the USA, started to life for short time periods or permanently.

The third historic moment started in the 2000, when international private investors, retired and Mexican people from other states, with a high purchasing power, arrived at the city; in addition to that, the touristic and commercial projects development, etc.

In the 2002, *San Miguel de Allende* city was included in the program of magical towns, this program was developed by the Secretary of Tourism (SECTUR by its abbreviation in Spanish) and many other government institutions.

Six years later, in 2008, the city was declared a World Heritage site by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), under the title of *Villa Protectora de San Miguel y Santuario de Jesús Nazareno de Atotonilco*, declaratory number 1274, in figure 2.

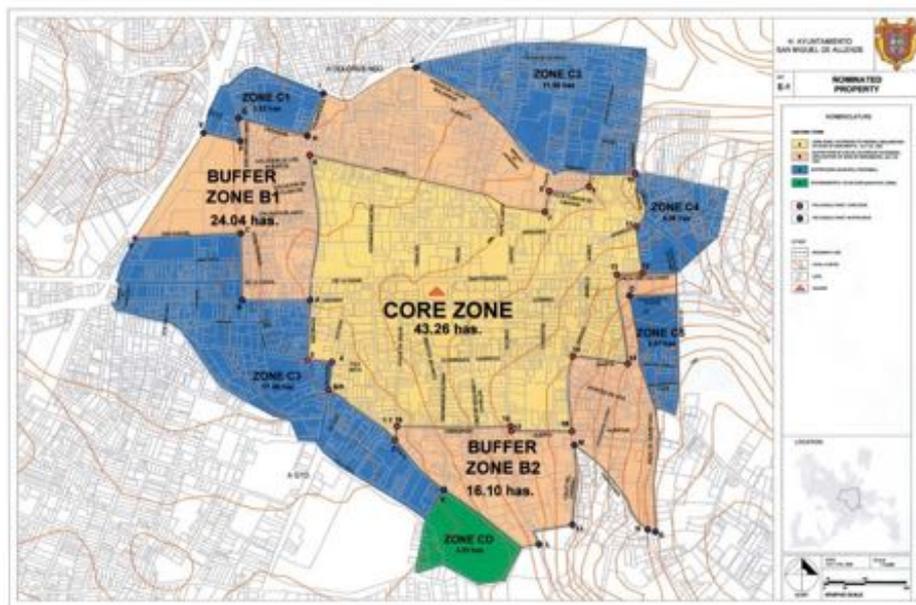


Figure 2.- Protective town of San Miguel - inscribed property, UNESCO.

This nomination was granted by its cultural and architectural baroque style and because of its importance in Mexico's independence. The core zone covers 44 hectares delimited by the light orange color, which was considered for this research work. *San Miguel de Allende* is distinguished for belonging to the main colonial destinies and heritage sites of Mexico.

THE AIRBNB PLATFORM IN SMA

In the year 2016, in Mexico, more than 975 thousand national and foreign travelers were hosted in houses managed through Airbnb (Mackinlay, 2017). Subsequently, in the year 2013, it was the year when the platform Airbnb started to be used.

San Miguel de Allende represents the biggest number of accommodations with three thousand and five hundred active hosting, representing the 46% total of the State *Guanajuato* (City Council, SMA, 2019).

By the end of the year 2019, the historic city center had a total of 405 accommodations registered in the platform, those accommodations were integrated by condominiums, rooms, apartments, suites, lofts, whole houses, villages, guest houses, and bungalows (Liévanos, 2019), in figure 3.



Figure 3.- Airbnb platform accommodations, in SMA, 2019.

In the 2019, San Miguel de Allende registered a vital process of tourist gentrification accompanied with a property speculation, displacement, elitization of services, etc. Besides the arrival of the accommodation platform Airbnb, which is linked to the real estate sector, and also, there is a tension among the hotel sectors.

Airbnb impacts the real estate sector since it reduces the number of properties for sale and rent because of the people's preference for the platform. With the arrival of Airbnb, in the city, the rent of whole households, lofts, condominiums, and villages; has increased. This trend directly modifies the property speculation within the city since it reduces the number of properties for sale, because the owners prefer renting their households in the weekends rather than sell them (they wait the houses increase its value), in figure 4.



Figure 4.- Airbnb dynamics and gentrification in the SMA

The impact of the COVID-19 pandemic in *San Miguel de Allende*. It was declared the COVID-19 pandemic by the WHO, on March 11th, 2020. The pandemic shook the entire world and Mexico, especially all those places that depend on the tourism, in figure 5.



Figure 5.- Photographs of SMA's historic downtown during the COVID-19 pandemic, taken from instagram #sanmigueldeallende.

The situation of the hosting platform Airbnb during the pandemic. The announcement of the COVID-19 pandemic made the cities to adapt and undertake, in the best way, this historical moment that shook the world. Airbnb, at global level, experienced repercussions, and the city of research, was not the exception.

CONCLUSION

During the transitional period there have been detected a few important differences in different sectors of the tourist places and heritage area of the city. Withing the preliminary findings it is established that the relocation in *San Miguel De Allende* is complex since it represents a strong siege and real estate speculation linked to Airbnb.

The platform is fully used as business with a minimum incidence that directly contributes with the establishments called "community economies "and among other factors that have been generated duality of positions and opinions.

REFERENCES

- Cocola-Gant, A. (2018). Tourism gentrification. En L. Less, & M. Phillips, *Handbook of Gentrification Studies*. Cheltenham and Northampton: Edward Elgar Publishing.
- Flores, M. & Guerra, M. (2016). *Entre lo local y lo foráneo: Gentrificación y discriminación en San Miguel de Allende, Guanajuato*. México: *Revista Legislativa de Estudios Sociales y de opinión pública*, 9(18), 183-206. <https://biblat.unam.mx/fr/revista/revista-legislativa-de-estudios-sociales-y-de-opinion-publica/articulo/entre-lo-local-y-lo-foraneo-gentrificacion-y-discriminacion-en-san-miguel-allende-guanajuato>
- Gravari-Barbas, M. & Guinand, S. (2017). *Tourism and gentrification in contemporary metropolises*. International perspectives. London: Routledge.
- Liévanos, J. E. (2019). *Gentrificación turística en la ciudad patrimonial de San Miguel de Allende*. México: PhD thesis.
- Mackinlay, C. (2017). *Turismo y economía en centros históricos*. En A. y. Pineda, *Ciudades y centros históricos: los retos de la vivienda y la habitabilidad*, pp. 99-108. México: PUEC UNAM, CONACYT & University of Guanajuato.

Pinley, L. (2017). San Miguel de Allende. Mexican foreigners and the making of a world heritage site. University of Nebraska.

UNESCO. Protective town of San Miguel and the Sanctuary of Jesús Nazareno de Atotonilco.
<https://whc.unesco.org/en/list/1274>

EXAMINING THE IMPACTS OF GOLDEN HORN METRO BRIDGE ON HISTORICAL SKYLINE THROUGH VISUAL ATTENTION

ARAF ÖYKÜ TÜRKEN

Research Assistant, Department of City and Regional Planning, Faculty of Architecture, Yildiz Technical University, Besiktas, İstanbul

ABSTRACT

Istanbul is a unique city in terms of its historical layers, geographical location and socio-cultural dynamics. This situation has also shaped the city silhouette through monumental structures and multi-layered built environment. Concerning these, studies on the historical skyline of Istanbul focus on the Historical Peninsula, the Bosphorus and the Golden Horn. However, high-rise buildings, which increased in number after 1985, mega-projects that directed the spatial transformation of the city after 2000, and controversial transportation projects are considered critical issues that threaten the city's silhouette. In this direction, the Golden Horn Metro Bridge is another controversial structure in terms of its relationship with the Suleymaniye Mosque and its Associated Component Area of World Heritage Site and its effect on the silhouette of the Golden Horn. The bridge, which construction started in 2009, was criticized by UNESCO regarding its form, and the necessity of searching for alternative forms was expressed. Although it is subject to revision, at the point reached today, the inclined suspensions, pylons and height of the bridge reduce the visibility of the universal values in the area, and experts describe the bridge as a negative and permanent effect.

In the research, it was aimed to understand the size of the visual impact created by the bridge and to measure its effect on the historical silhouette through visual attention. A field study was carried out within the scope of the research, and reciprocal points were determined on the axis of Eminönü-Unkapanı and Karakoy-Azapkapı. Field photographs taken from the determined points and the Golden Horn waterline were analyzed by 3M VAS, visual attention software. In the analysis, the values of the visual attention probabilities (92% accuracy) of the bridge and other monumental structures affecting the silhouette were compared. As a result of the research, it has been seen that the Golden Horn Metro Bridge directs the visual focus of the area to itself and reduces the visibility of the historical silhouette by coming to the forefront in the gaze sequences of the users.

KEYWORDS: Urban skyline, Golden Horn, silhouette, visual attention.

1. INTRODUCTION

The urban skyline emerges as an essential component that contains critical environmental elements in creating an image of the city for the users (Şevkin & Gül, 2017, p. 2). Urban skylines, which are directly related to the representation of the cities, contain traces of the city's physical structure and historical layers. In this context, Istanbul has a unique image in its topographic structure and the civilizations it hosts. However, the increasing population and uncontrolled construction after the 50s, the high-rise buildings built after the 80s, the mega-projects that started to be implemented after the 2000s are the issues threaten the silhouette of the city (Sev & Basarir, 2015; Deniz, Doğan, & Katıtaş, 2020). Some of these types of projects, which also change the visual interaction of the users with the city, become the dominant elements in the urban space and make the more invisible of historical traces. These structures, which direct the attention of individuals to themselves, can put the historical values and identity elements of the city into the background in terms of visual perception.

In Istanbul, special geographies such as the Bosphorus and the Golden Horn are among the unique factors that strengthen the city's image. Especially the single tall buildings and structures built on the coastline and coastal impact areas (in Bosphorus and the Golden Horn) threaten the historical skyline formed over the centuries. This damage is not only the subject of national debates. Any intervention that visually affects the city's historical landscape and historical skyline is to jeopardize the city's position on the World Heritage List, as it is known that UNESCO has already warned Turkey in this context (Sev & Basarir, 2015). Accordingly, the Golden Horn Metro Bridge is another structure that has been the subject of controversy in the Golden Horn silhouette and the damage it has caused to universal values (Süleymaniye Mosque and its environs). In this direction, the research aims to read the changing historical skyline with the construction of the Golden Horn Metro Bridge and the visual interaction of the users with the monumental structures in the skyline and seeks answers to the questions listed below.

RQ1: What are the debates in the literature in the context of the Golden Horn Metro Bridge? How can the construction process and the impact on the historical environment be evaluated?

RQ2: How can the visual impact of the Golden Horn Metro Bridge on the skyline of the Golden Horn be measured?

RQ3: How did the Golden Horn Metro Bridge affect the visibility of other monumental structures in the silhouette of the Golden Horn?

In this context, the research, which deals with visual attention as a critical issue in the way users perceive the urban environment and their visual interaction, focuses on the relationship between the urban skyline and visual attention. It examines the visual effect of the Golden Horn Metro Bridge in this context.

2. CHANGING URBAN SKYLINE OF ISTANBUL

2.1 Concept of "Urban Skyline"

Urban skylines can be defined as the view of natural and built environment elements belonging to a city or part of it from a distance, city profiles from afar (Şevkin & Gül, 2017, p. 1; Karagüler & Korgavuş, 2014; lukić, 2011). In a sense, the urban skyline, an integrated panoramic view of the urban geography, the built environment, historical layers and visual foci in the city (Guney, Girginkaya, Cagdas, & Yavuz, 2012). It is an essential element in the first encounter with the city and creating a visual impression (lukić, 2011). Related to this, Gassner (2009) sees city lines as an abstraction that expresses cities' relationship with the sky. This abstraction consists of elevation, icons and lines. In the urban skyline, it is perceived holistically as everything below the skyline and is reduced to the elements with the highest visibility in the contours of the city (Gassner, 2009). The way these elements come together, the rhythm, repetition and balance they create define a uniqueness situation specific

to cities. In parallel, Lukic (2011) sees the urban silhouette as the primary representation of the visual identity of the urban form.

When the concept first emerged, it was defined as a distant view of a city from street level in the travel writings of the 18th century, it referred to visual expression of natural landscape in the 19th century, and since the 1850s, the built environment has been discussed together with the natural environment in terms of urban skyline. While in the first years it covered the built environment, it was examined with the focus of "a construction that disrupts the natural landscape", but today, values such as identity, orientation and originality of cities deal with the built environment and natural environment factors holistically in the context of the skylines (Gassner, 2009, p. 77-79).

Nowadays, the urban skylines have turned into a tool for promoting and branding the city. In different countries, it is structured with a focus on designing the macro image, taking into account the protection zones along with defined laws and regulations (Lukić, 2011, p. 131). On the other hand, the urban silhouette is only one aspect of the built environment. Although abstractions provide a holistic and continuous understanding of the city, they flatten it (p. 83) and largely neglect socio-spatial details (Gassner, 2009). But opposite to these, today's silhouette studies deal with natural factors, spatial factors, factors directing the space, and socio-cultural factors (Kozaman, 2007; Babal, 2019) and examine the silhouette through meanings that are much more than a visual profile.

2.2 About Historical Skyline of Istanbul

It is seen that the studies on the urban skyline of Istanbul are concentrated on the Historical Peninsula, Golden Horn and Bosphorus line. The city's unique geography and its relationship with the coast are natural factors that affect the silhouette characteristic. Elements such as monumental structures built by empires, multi-layered historical texture, coastal structures, urban pattern constitute spatial factors (Kozaman, 2007; Şevkin & Gül, 2017). With its natural features and historical layers, Istanbul creates a unique image, and the silhouette of the city contains many symbols. In this context, the structural elements and approaches that shape the urban skyline from a historical perspective can be listed as follows.

First of all, the city has been occupied, rebuilt and shaped in line with different ideologies many times, from its first settlements to today's multi-layered metropolis (Şevkin & Gül, 2017). While the construction of religious buildings to strengthen the Christian image, structures such as aqueducts and walls shape the silhouette of the historical peninsula during the Byzantine period [Valens Aqueduct, land and sea walls, Hagia Sophia Church, Hippodrome, Apostle Church (Aslan, 2019)], Genoese colonies of Galata Region played a critical role in shaping it [Galata Tower (Şevkin & Gül, 2017, s. 7)]. In the Ottoman period after 1453, there were developments in the image of the city that allowed the spread of Islamic figures. While churches were turned into mosques, the construction of Topkapı Palace affected the appearance of the historical peninsula. While the Islamic city image is strengthened with the construction of structures such as Süleymaniye Mosque, Yeni Mosque, Rüstem Paşa Mosque, Sokullu Mehmet Paşa Mosque (Şevkin & Gül, 2017, p. 7), the "Divanyolu" is restructured with the construction of monumental structures. In the ongoing process, as the city continues to expand along the Bosphorus line, the main form of the Bosphorus silhouette is structured with the construction of mansions and palaces (Dolmabahçe, Çırağan and Beylerbeyi, etc.). The Golden Horn, on the other hand, stands out as a city port in this period.

Although there was a stagnation in construction activities in Istanbul for a certain period with the proclamation of the Republic, the increasing immigration and housing need after the 1950s transformed the urban pattern. The high-rise buildings, which increased after the 80s, started to be seen as a critical problem in changing the urban skyline. Although the number was limited between the years 50-80, the construction of buildings such as the Vakıflar Hotel, the Intercontinental Hotel, the Harbiye Orduevi, the Hilton Hotel became the marker of future

high-rise buildings (Şevkin & Gül, 2017) . Bosphorus protection areas were created with the Bosphorus Law in 1983, these areas are classified with names such as waterside front view zones, rear view zones and impact zones (Karagüler & Korgavuş, 2014, p. 209-210). On the other hand, this legal regulation was not sufficient to prevent physical corruption in the urban skyline (Güney, Girginkaya, Çağdas, & Yavuz, 2012, p. 161) With the tourism incentive law after 1982 and the bridges changing the dynamics in the urban space, in particular, the formation of new business centres has been paved the way, and high-rise construction has intensified on the Beşiktaş-Zincirlikuyu-Maslak axis in the northern direction of the city (Şevkin & Gül, 2017, p. 11) (Figure 1). In this context, it can be stated that the image of the historical city has changed with the increasing high-rise construction after the 80s. Globalization and the activities carried out in parallel with attracting foreign capital to the city are also triggered to this situation. While these policies triggered the construction of prestige projects in the city, they made creating a global city image a priority (Akdağ & Bostancı, 2013). The effort to be the "best" in cities in a global competition supported the production of megaprojects and infrastructures, and the demands for projects produced by star architects increased in this context (Alp, 2018).

On the other hand, these changes and spatial interventions have increased the unwanted urban landscape formations, especially in the historical peninsula and the Bosphorus silhouette (Karagüler & Korgavuş, 2014, p. 211). When new buildings and structures that compete with monumental structures are built without considering the topographic features of the city, they create controversial visual effects as single structures that strike the silhouette. In this context, the balance of conservation and change should be considered a critical issue in cities like Istanbul.



Figure 1 European Side Silhouette View (Beşiktaş-Ortaköy) (Şevkin & Gül, 2017, s. 11)

2.3 Golden Horn Silhouette and Threats

The Golden Horn is an important area for the city of Istanbul and has experienced changes in function and urban fabric in the historical process. The area, which has an opening point to the Bosphorus and a unique natural character, also has a deep-rooted history due to its relationship with the historical peninsula and its advantages in terms of defence. The first known settlements in the area date back to the BC 7th century. Different sub-regions (Venetians, Pisans, Genoese) hosting various colonies are mentioned in the ongoing process. On the other hand, Galata region stands out as a colony of Genoa. It is known that the northern line of the Golden Horn preserved its natural structure during these periods (Yüçetürk, 2001, p. 5-7). In the Ottoman period, Galata served as a foreign trade centre, Kasımpaşa served as a military settlement and Karaköy as a port. These functions in the area are manifested by structuring such as palaces, mansions, mosques, piers, port functions and structures, and military structures. It also contains the defining symbols of today's silhouette. After the 16th century, settlements outside the walls were concentrated in the Golden Horn region, predominantly in the Bosphorus side and Pera, the number of berths focusing on the trade of different goods in different sub-areas of the Golden Horn increased. In the 19th century, along with the developing technologies, different industrial establishments (Feshane, Silahtarağa, etc.) are seen to be located in the Golden Horn (Yerliyurt & Hamamcioğlu, 2005). The construction of the Unkapanı Bridge (1983) and the Galata Bridge (1845) were also completed during

this period (Yesiltepe & Kubat, 2017). At that time, Galata, a district where minority quarters and notables of the state reside, also represents the western face of the Ottoman Empire.

In the Republican period, the Golden Horn remained in the focus of industrialization in line with Prost's plan. In the 60s, gecekondu triggered a change in the urban pattern in some areas. The decentralizations after 1980 it was aimed to reconcile the industrial function from the region. In this period, the interventions to clear the industry from the area resulted in a large loss of industrial heritage and deprived the area (Yerliyurt & Hamamcioğlu, 2005). Accordingly, even today, with limited access to the coast and non-integrated uses, the Golden Horn still exists as a region where planning and design decisions are discussed in Istanbul (Yüçetürk, 2001, s. 120-131). On the other hand, investments for increasing public use and making the area a centre of attraction continue to exist. Although each sub-region has different dynamics, Karaköy and Eminönü regions still stand out with their trade and storage functions. Their idle usage and security problems are still up to date to a certain extent.

The essential structural elements that make up the silhouette of the Golden Horn can be characterized by the traces of the walls, shipyards and ports, bridges and monumental structures built by the past civilizations and carried to the present day. In this process, only a certain part of these structures remained standing, and illegal construction negatively affected the urban skyline. As mentioned above, industrial heritage structures have been largely demolished. Although the competitions held in the field [Golden Horn Design Competition - 7 Regions (IPA, 2020)] and new projects lead to more holistic and integrated designs, it is possible to say that some controversial projects still exist. On the other hand, although the zoning regulations tried to limit the number of building floors in the Golden Horn, implementation problems arose and were insufficient to repair the already deteriorated texture. In this context, the research is about Eminönü-Unkapanı and Karaköy-Azapkapı axis, and some discussions about new constructions that threaten the city silhouette in the region are listed as follows.

The 'Onaltı-dokuz' construction (2011) appears as a complex that damages the panoramic view of the city and the visual integrity of the Süleymaniye Mosque. Although a demolition decision was taken, it was not implemented (Sev & Basarir, 2015; Yapı, 2014).

Haliç Metro Bridge (2014), on the other hand, has been discussed by national and supranational institutions and has been expressed by experts as a threat to the Süleymaniye Mosque and its Associated Component Area of World Heritage Site. The bridge's proximity to the Yeşildirekli Hammam, the work of Mimar Sinan (Benli, 2013), and the remains of the Galata Walls are also a conservation issue.

Another current debate in 2022 is that the dormitory building, which is being built by a foundation, will damage the silhouette of the Süleymaniye Mosque and its surroundings. In this context, the decision to stop the construction has been taken by IBB (Istanbul Metropolitan Municipality) (CNNTürk, 2022).

3. VISUAL ATTENTION AS AN APPROACH TO UNDERSTAND URBAN ENVIRONMENT THROUGH USERS' EYE

The human brain uses attention to focus on certain stimuli, rather than processing all stimuli at once. So "attention" is selective (Suarez, 2020). Attention can exist in top-down and bottom-up structures, and objects' physical form and states (colour, direction, movement, brightness, etc.) may unintentionally affect users' attention. Attention from bottom to top while it takes place in stimulus-driven processes, top-down attention includes the goal-oriented orientation of people (Suarez, 2020; Egeth & Yantis, 1997). On the other hand, attention is directed to objects sequentially depending on priorities, and environmental stimuli significantly affect this orientation. In this context, attentional priority requires a complex activation of top-down and bottom-up states (Egeth & Yantis, 1997, p. 277).

In observing the urban environment, being aware of the elements that affect the attention of the users gives critical clues about the space (Abad, Vidal, Millán, & Provinciale, 2015, p. 229). Following the gaze direction of

users experiencing an urban space is similar to following their attentional path. Accordingly, techniques such as eye-tracking devices and attention software can be used to analyze architectural images and environments in urban-space studies (p.229). Eye-tracking devices are biometric technologies that can track attention to objects through gaze duration, gaze sequence, and eye fixations (Suarez, 2020). As the tendency of the users to the stimuli increases, the fixation rate of the eye increases and the fixation time becomes longer. These measurements are often used to evaluate the graphic design and computer-based visual experiences. However, there are examples of their applications in space, architecture, and urban design in recent years, albeit in a limited number (Justin B. Hollander, Lowitt, Angus, & Situ, 2021, p. 2). Similarly, in the software used in the research, the focus of attention at first glance in the field produces an estimate (with 92% accuracy) to detect objects and images. These determinations can be used to analyse the perception of the space itself and the things in it by the user.

As it is known, human senses constitute a vital part of the urban space experience (Justin B. Hollander, Lowitt, Angus, & Situ, 2021), in this context, visual interaction is also an essential part of our experiences that affect our perception of urban space. Lynch's definition of imaginability comes to the fore as a concept associated with this literature (pp. 3-4). Lynch (2010) discusses the form, colour and arrangements in the urban space by questioning the quality of the physical object that has the possibility to create a strong image in the observer. Accordingly, the measurement mentioned above forms and visual attention approaches are seen as innovative in analyzing our unconscious space perception experience. The reality behind this approach is that good architecture and urban planning tend to produce an emotional experience, similar to good product design. The creation of emotion and experience is expressed by Norman (2013) as internal, behavioural and reflective (as cited in Sussman & Hollander, 2021). This trio is in constant interaction and determines our reactions. Eye-tracking is used as a helpful tool to make these invisible behaviours visible and to predict our next actions in the design processes (Sussman & Hollander, 2021, p. 257-266). This situation supports our understanding of unconscious human behaviors in space in terms of visual interaction. Parallel to this, some studies that use the technique to analyze user perception in urban space can be listed as follows.

For example, the study by Justin B. Hollander, Lowitt, Angus, & Situ (2021) examines the relationship between traditional neighborhood design principles and visual stimuli and users' eye movements and fixation. Lavdas, Salingaros, & Sussman (2021) focus on using 3m vas software and its possible impact on design processes to understand people's subconscious experience with buildings. Hollander, Sussman, Lowittc, Angusc, & Situ (2021) considers eye-tracking technology as a promising urban design tool and see it as a tool to explore visual stimuli in urban space. Sussman & Hollander (2021), in their book titled 'Cognitive Architecture', deals with biometric tools that support the understanding of human behavior in space and its relationship with space perception through different concepts.

4. METHODOLOGY

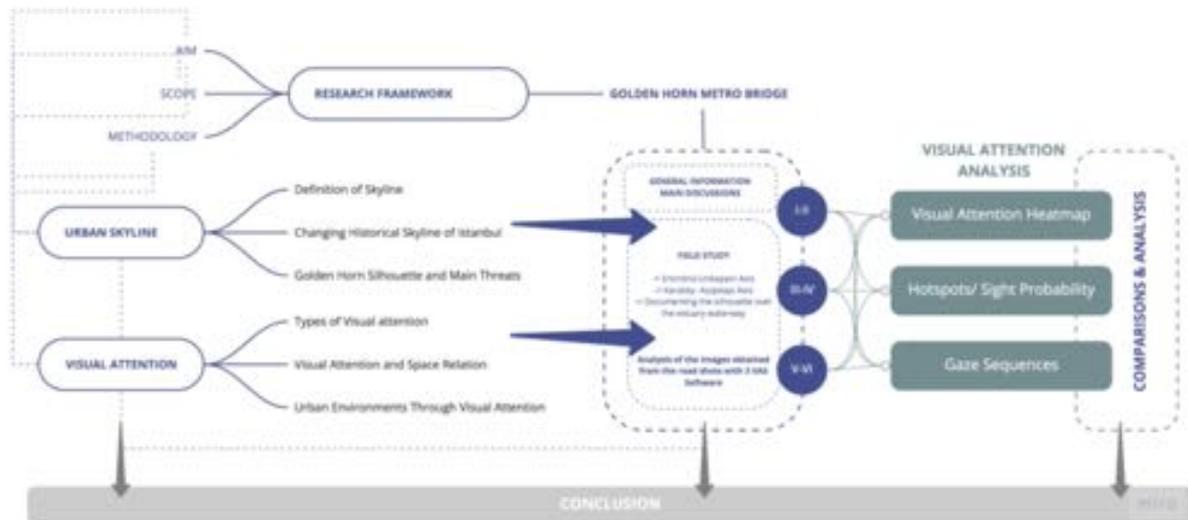


Figure 2 Research Flow

Within the scope of the research, the conceptual framework of urban skylines and the studies on the silhouette change of Istanbul were examined in detail. In this direction, the focus was on the Golden Horn region, and the threats to the historical heritage and skyline in the area were detailed. In addition, the use of visual attention in urban studies is examined as a way of understanding the visual interactions of users with urban space. The role of urban skylines and monumental structures in users' visual perception of the city was emphasized, and photographs were taken on the Eminönü-Unkapanı and Karakoy-Azapkapı axis and Golden Horn waterline, over six reciprocal points determined through the field studies carried out in February 2022. The images¹ obtained were analyzed through the 3M VAS visual attention software macro outdoor option in this context. Within the scope of the VAS reports created by the software, the monumental structures (Süleymaniye Mosque, Galata Tower etc.) and the Golden Horn Metro Bridge were compared over the heat maps of the images, the sight probabilities and the gaze sequences of the users (Figure 2).

Details of Visual Attention Analysis with 3M VAS Software;

3M|vas simulates pre-attentive processing, a phase of brain-eye interaction that occurs when we first look (3-5 second) at an area/image. The software works with 92% accuracy and reveals data on visual attention, sight probability and gaze sequences through the images uploaded to the system (3M VAS, 2021).

Visual Attention Heatmap: Provides a visual overview of design/space salient points.

Hotspots/ Sight Probability: Scores the probability that active regions of the heatmap will grab the viewer's attention.

Gaze Sequences: Presents the order in which users will see the top four areas most likely to be noticed.

Limitations of Research;

In the research, while visual information interactions are fixed in a 2D image, information is unlimited in a 3D environment. This indicates that the analysis of the images in the research can only express a part of the existing visual perception.

¹ While photographing, attention was paid to unmanned photography and focused on architecture (since the human brain tends to detect people before architectural objects), and monumental structures were processed as "area of interest" in the analysis tool, and sight probability were produced. In the analyzes made over the 'Outdoor' option, the cutting process was carried out to ensure that the photographs were focused on monumental structure.

The interaction with the urban space is shaped not only through seeing but also through many different sensory experiences. The research focuses on visual experience while ignoring other senses.

The visual attention analyses carried out in the research were tested according to the accuracy rates of the related software (92%), based on snapshots, and the changes in the light and colour balances in the visual can affect the attention values to a certain extent.

5. DETERMINING IMPACT OF GOLDEN HORN METRO BRIDGE ON HISTORICAL SKYLINE

About Golden Horn Metro Bridge

Golden Horn Metro Bridge, which was built in 2009 and completed in 2014, is a 936-meter-long structure with a metro line passing through the middle and pedestrian crossing areas on both sides. The idea of constructing a metro project in the area was first presented by IBB (İstanbul Metropolitan Municipality) in 1998. Following years, a meeting was held with the famous architect Calatrava, but the stated costs forced the municipality to negotiate (2002). With the election of Kadir Topbaş as mayor in 2004, the first drafts of the bridge built today (Architect; Hakan Kıran) were put forward (Çelen, 2016, p. 166-168). In 2006, concerns about the bridge form were raised by the World Heritage Committee (UNESCO, 2012). It was decided to position the bridge between Unkapanı and Galata Bridge, and the construction process started in 2009.

In 2010, an expert team was appointed considering the contrast between the bridge form and the historical urban skyline of Istanbul. In its 2010 resolutions, UNESCO described the metro bridge, which has a cable-posted structure, as “might have the potential to irreversibly impact on the Outstanding Universal Value and integrity of the property, in accordance with Paragraph 179 (b).” (UNESCO, 2010). In 2012, the current situation was expressed with the emphasis on “as construction work has progressed, no further structural changes are possible”. The World Heritage Committee invited Turkey to develop a study to reduce the negative visuality of the bridge (lighting, color, etc.) (UNESCO, 2012). In line with the criticisms made in this context, the bridge piers were modified to achieve visual permeability, cable diameters were reduced, and the length of the platform roof was shortened (Enzo Siviero, Martini, & Stocco, 2018; UNESCO, 2012, p. 24). On the other hand, the limited community participation dimension of the design and construction processes of the bridge was also discussed by experts, and UNESCO emphasized the necessity and encouragement of participatory processes in its 2012 report. Indicates that detailed information should be submitted to ICOMOS International. In addition, in 2012, a team including Cüneyt Sorosh-Wali, expert of the UNESCO Cultural Heritage Committee, and Paul Drury from ICOMOS, made a 'reactive study visit' to the site. Academicians from the ICOMOS Turkey delegation emphasized the negative image created by the bridge and the lack of communication between the actors (Yazman, 2012; İstanbul S.O.S Girişimi'nden Haliç Metro Köprüsü İnşaatına Tepki, 2012).

In the 2013 resolution, the World Heritage Committee accepted the commitment of the State (Turkey) to halt construction work to reduce the bridge's impact on the historic landscape. It stated that the changes have improved the bridge design but reiterates that the bridge continues to affect the view of the Historic Peninsula adversely (UNESCO, 2013). At the point reached today, even if revisions are made, it is a fact that the bridge has a significant visual impact on the area. The controversial process has been carried out by both international and national conservation circles concerning the universal value of the area. In addition to the bridge form, miscommunication between actors and lack of participation are other controversial issues regarding the process.

Visual Attention Analysis of Golden Horn Metro Bridge



Figure 3 Fieldwork and Photography Angles

In the research, a field study based on Azapkapı-Unkapanı and Karaköy was carried out. Photographs were taken of two coastlines at opposite points, and photographs were taken of the bridge and monumental structures together using the Golden Horn ferry (Figure 3). In this section, adhering to the photographs obtained during the field trip, first the bridge's effect on the historical peninsula and Karaköy coastline will be examined through user visual attention.

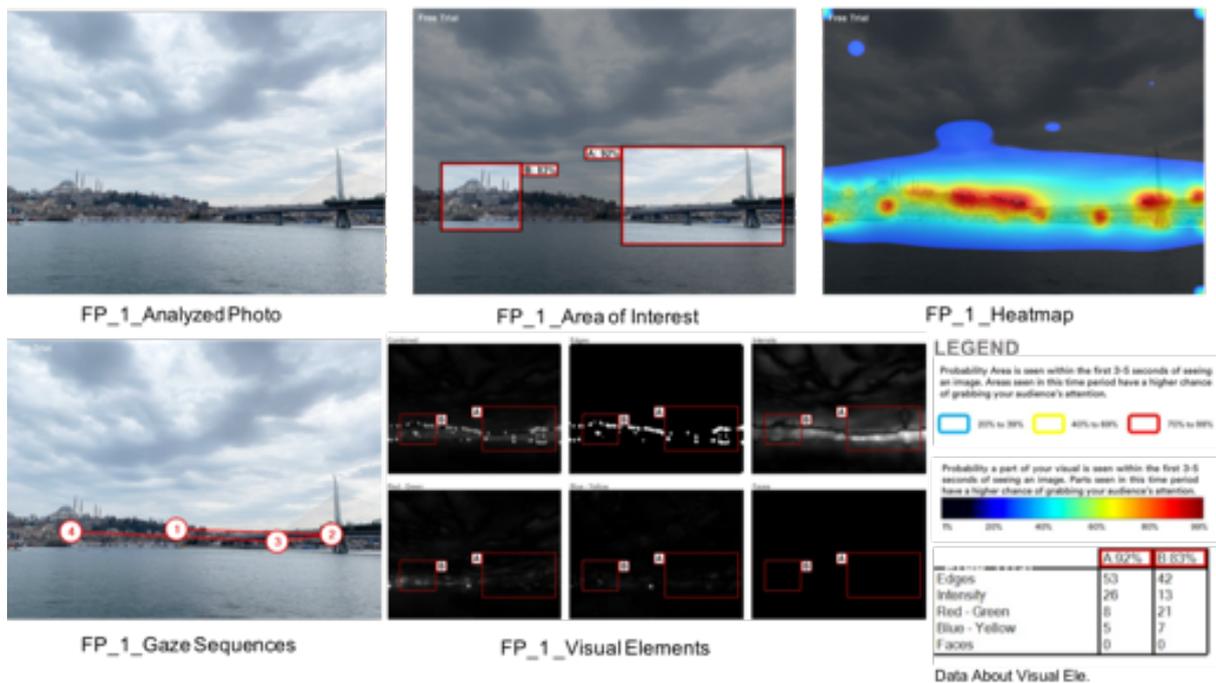


Figure 4 Visual Attention Analysis of FP_1 (Produced through 3M VAS software.)

When the photograph FP_1 taken from Karaköy Coast Park in the direction of Süleymaniye is analyzed with visual attention software, the probability of the bridge attracting a user's interest in the area is 92%. In comparison, the probability of interest in the Süleymaniye Mosque and Complex and its surroundings is 83%. Although the visual attention shifts to the dense construction on the coast in the heat map, the Golden Horn Metro Bridge is the 2nd and 3rd in the view order of the users. The closest visual interest area to the Süleymaniye Mosque is on the 4th row (Figure 4).

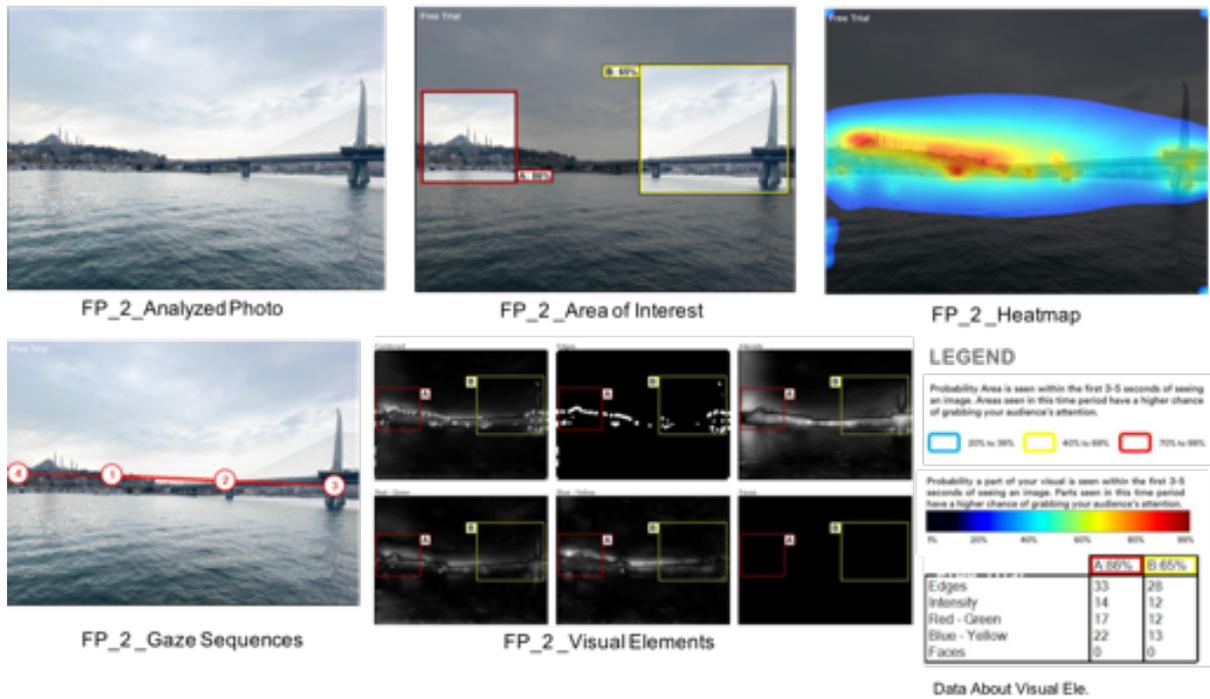


Figure 5 Visual Attention Analysis of FP_2 (Produced through 3M VAS software.)

In the photograph FP_2 taken from the Golden Horn water line in the direction of Süleymaniye, the probability of attracting visual attention in Süleymaniye and its surroundings was 86%, while the probability of interest in the area where the Golden Horn Metro Bridge is located was determined as 65%. On the other hand, as seen in the heat map, the main focus is the dense construction around the mosque, not the mosque itself. While the bridge was numbered 2-3 during the user's view order, the closest focus to the mosque was determined as 4 (Figure 5).

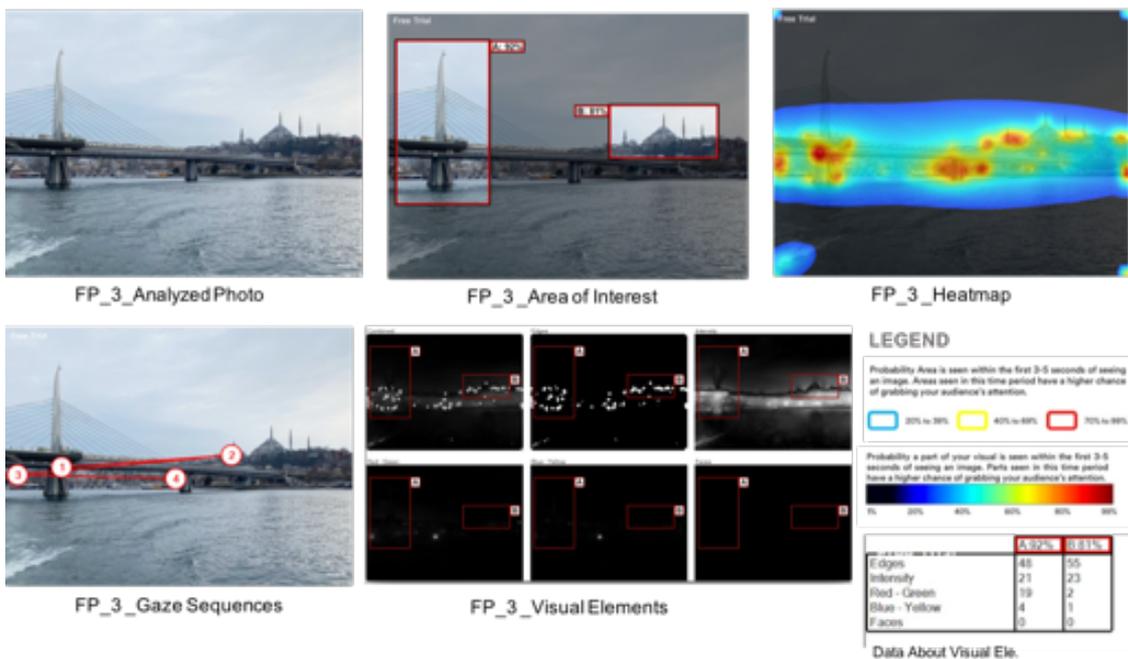


Figure 6 Visual Attention Analysis of FP_3 (Produced through 3M VAS software.)

In the photograph FP_3 taken while looking at the historical peninsula from beyond the bridge at the waterline, the probability of the bridge attracting interest is 92%. In comparison, the probability of attracting visual attention to the mosque and its surroundings is 81%. Although the heatmap has multiple sub-focals, the density created by the bridge piers is the main focus of the users. While the bridge is in the 1st row in the possible view, the focus of the closest view to the mosque is the 2nd row, focused on the minarets (Figure 6).

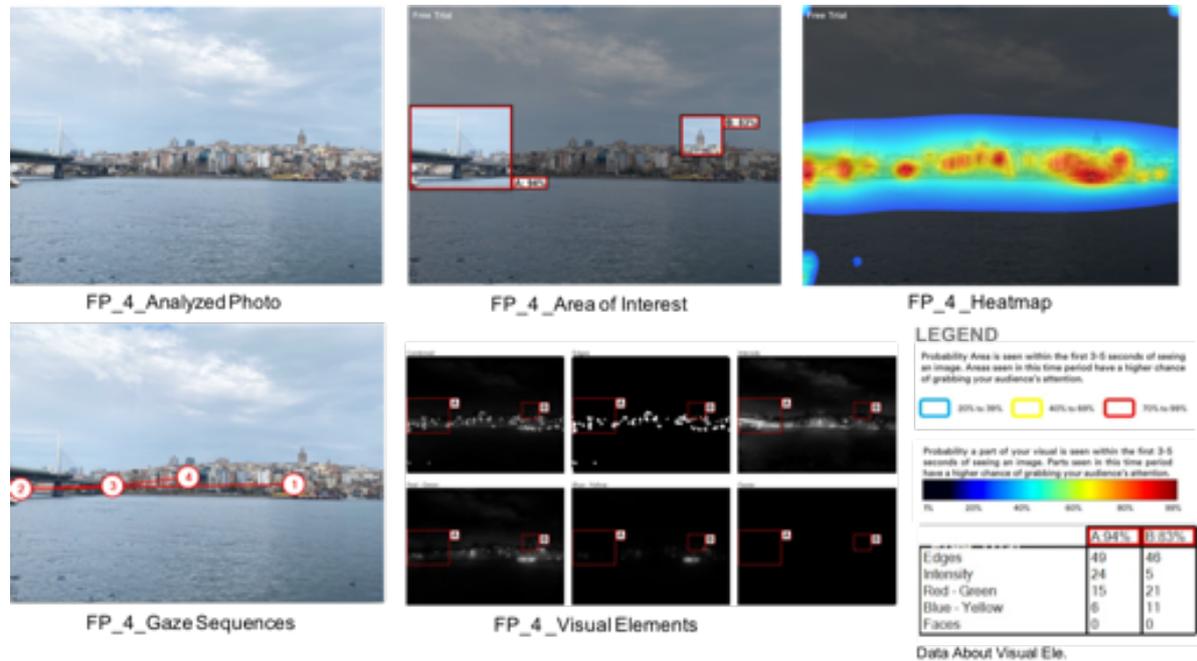


Figure 7 Visual Attention Analysis of FP_4 (Produced through 3M VAS software).

In the photograph FP_4, which looks over Galata from the coastal park in the direction of Eminönü, the area of interest for the Golden Horn Metro Bridge was determined as 94%. In contrast, the area of interest for the Galata Tower, which has an essential role as a silhouette and a city symbol, was determined as 83%. In view order, while the bridge is in the second and third rows, the tower is not a direct focus of attention (Figure 7).

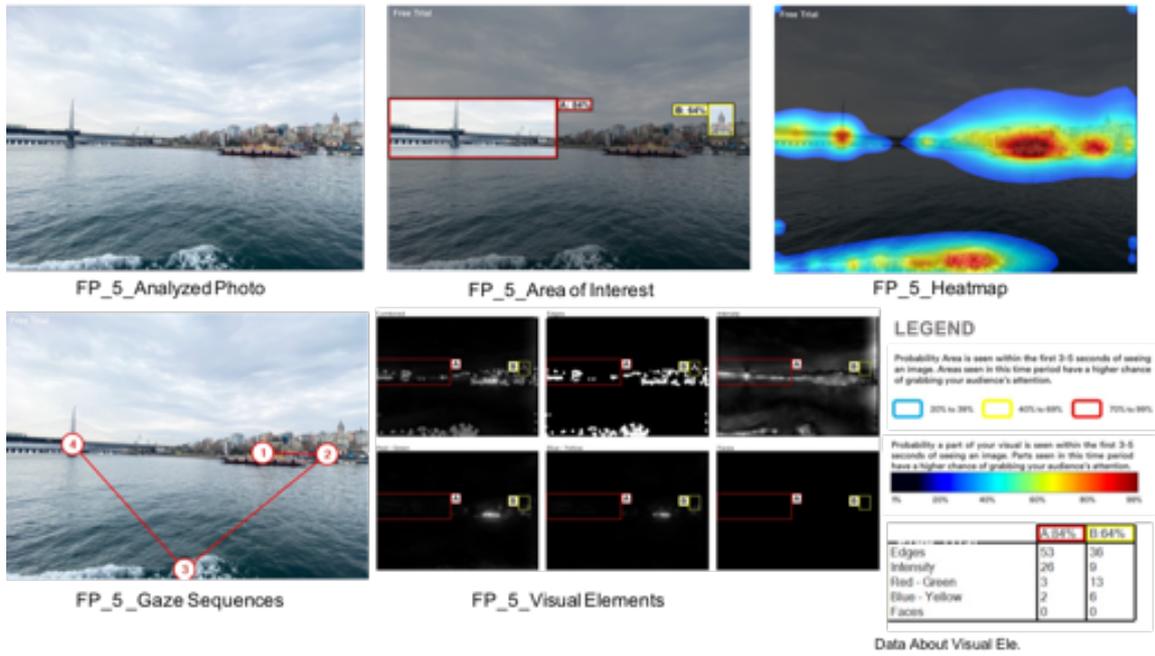


Figure 8 Visual Attention Analysis of FP_5 (Produced through 3M VAS software.)

In the photograph numbered FP_5, looking towards Galata from the waterline, the interest area of the users was determined as 84% for the bridge and 64% for the Galata Tower. While the red structure in the coastal park is the main focus of view in the area, the bridge is designated as the 4th row. On the other hand, the tower is not one of the first four possible foci, depending on the order of view (Figure 8).

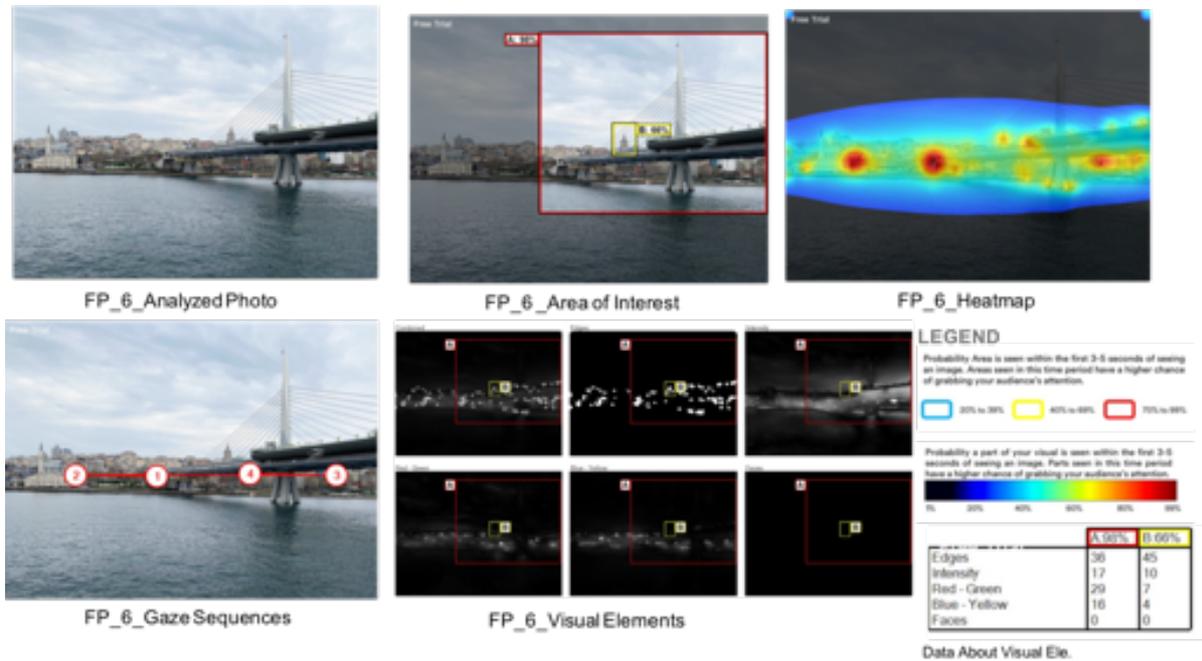


Figure 9 Visual Attention Analysis of FP_6 (Produced through 3M VAS software.)

In the photograph FP_6 taken towards the Galata region after the Bridge, it is seen that the bridge suspensions are curtaining the tower. In the photograph taken from this angle, the bridge structure is quite dominant, and the probability of the structure attracting attention is determined as 98%. On the other hand, the tower has a

lower probability of attracting attention, at 66% (Figure 9). An addition to these, in this photograph FP_6, Sokullu Mehmet Pasha Mosque stands out as an important visual focus of attention in the area (gaze sequence: 2).

RESULTS AND FINDINGS

As a result of the visual attention analysis carried out on six photographs, it was seen that the region of interest of the Golden Horn Metro Bridge in five photographs (5/6) was higher than that of other monumental structures that have importance in the silhouette. When examined in relation to the historical peninsula side, the bridge has become one of the attention objects in the area, creating a visual focus, and in this context, it has reduced the possibility of attracting the attention of the Süleymaniye Mosque and its surroundings by a user looking at the area. Details on comparisons can be found in Table 1 (SM-Suleymaniye Mosque; GHMB-Golden Horn Metro Bridge) (Table 1).

Table 1. Comparison of the Relationship Between Süleymaniye Mosque and Golden Horn Metro Bridge through Visual Attention

	Area of Interest		Heatmap (max. value on monumental structure)		Gaze Sequence [1-2-3-4 (1 is most probably)]	
	SM	GHMB	SM	GHMB	SM	GHMB
FP_1	%83	%92	max.80	max. 90-99	4* (nearest)	2-3
FP_2	%86	%65	max. 90-99	max.80	4* (nearest)	2-3
FP_3	%81	%92	max. 80-85	max. 90-99	2* (nearest)	1-3-4

When the bridge's relationship with the Karakoy coastline and its existence in the same square with the Galata Tower (GT) are examined, it is seen that bridge surpasses other silhouette elements in visual attention with difference. Although the tower is in a disadvantageous position in volume, it has a decisive role in the urban skyline. Despite this, it remained below 70 in the spectrum on all heatmaps. Especially in perspective taken from ahead of the bridge, it is seen that the bridge hangers reduce Galata Tower's visibility. In all three photos, the bridge was more likely to attract attention than the tower. Comparisons can be seen in Table 2.

Table 2. Comparison of the Relationship Between Galata Tower and Golden Horn Metro Bridge through Visual Attention

	Area of Interest		Heatmap (max. value on monumental structure)		Gaze Sequence [1-2-3-4 (1 is most probably)]	
	GT	GHMB	GT	GHMB	GT	GHMB
FP_4	%83	%94	max.50	max.90	It could not be detected in the four gaze points.	2-3
FP_5	%64	%84	max.50	max. 90-99	It could not be detected in the four gaze points.	4
FP_6	%66	%98	max.70-80	max. 90-99	It could not be detected in the four gaze points.	3-4* (nearest)

6. CONCLUSION

Golden Horn Metro Bridge; it is a controversial structure in terms of its construction process, differences of opinion between actors and its approach to universal values. Its construction was completed after a conflicting process by different international and national institutions in this context. Although it is subject to revision, the relationship of the bridge with the historical environment is described by experts as a negative and permanent effect. On the other hand, the research tried to measure the visual effect of the bridge over the possible visual attention perceptions of the users. In this direction, the following conclusions have been reached.

- The Golden Horn Metro Bridge is an undeniable visual focus and attention element in the area.
- In the possible gaze sequences of the photographs with the bridge, the bridge was included in the first four view order. Therefore, the bridge stands out during the first 3-5 seconds of the people looking at the field.
- The high structure of the bridge, its columns creating an intense visual effect, its steel structure and its cover facing the metro station have come to the fore from different angles in users visual attention.

In most cases, coastal users' visual perception of the bridge occurs earlier than other structures in the area. This reduces visibility and the likelihood of drawing attention to other monumental structures and urban skylines.

In relation to the historical peninsula, considering the effect of the elements that make up the city skyline on the urban imagery; It can be stated that there is a visual competition effect between Haliç Metro Bridge and Suleymaniye Mosque and its surroundings, and it weakens the visual perception of the heritage area in the eyes of the user.

Concerning the Karaköy coastline, the bridge seems to overtake other monumental structures in the area similar to the one above. In the examinations made with the Galata Tower, the visual effect of the bridge is more robust with a clear difference. Especially for someone continuing on the Golden Horn waterline, the bridge is an element that reduces the visibility of the Galata Tower.

REFERENCES

Çelen, D. (2016). Kentsel Korumada Silüet Kavramı ve Silüetin Önemi; İstanbul Tarihi Yarımada Örneği. *Yüksek Lisans Tezi [MSc. Thesis]*. İstanbul: Mimar Sinan Güzel Sanatlar Üniversitesi Fen Bilimleri Enstitüsü Şehir ve Bölge Planlama Anabilim Dalı.

3M VAS. (2021). *Iterate quickly without breaking the bank*. Retrieved from 3M | vas: <https://vas.3m.com>

Abad, S. I., Vidal, F. J., Millán, C. L., & Provinciale, J. G. (2015). VISUAL ATTENTION IN THE EVALUATION OF ARCHITECTURAL SPACES. *EGA*, pp. 229-237.

Akdağ, S. G., & Bostanci, S. (2013). Impacts of Prestige Projects on the Skyline of Istanbul. *International Journal of Architectural Research*, 2(7), 269-281.

Alp, J. (2018). Büyük, Daha Büyük, En Büyük... İktidarların Kente İmzası: Mega Projeler. *mimar.ist*(61), 15-19.

Aslan, E. (2019). Kent Silüetlerinin Kentsel Miras Açısından Değerlendirilmesi: İstanbul Örneği ve Koruma Önerileri. *Yüksek Lisans Tezi*. İstanbul: Kadir Has Üniversitesi Lisansüstü Eğitim Enstitüsü Kültür Varlıklarını Koruma Yüksek Lisans Programı.

Babal, B. N. (2019). İstanbul Silüetinin Coğrafi Etiketli Görseller Aracılığı İle Değerlendirilmesi ve Bakı Noktalarının Tespit Edilmesi. *Yüksek Lisans Tezi*. İstanbul: İTÜ FBE Kentsel Tasarım Anabilim Dalı Kentsel Tasarım Programı.

Benli, G. (2013). İstanbul Perşembe Pazarında Bir Mimar Sinan Eseri; Yeşildirekli Hamam ve Haliç-Metro Köprüsü Etkileşimi. *8th International Sinan Symposium*, (pp. 1-8).

CNNTürk. (2022). *Süleymaniye'de silüet tartışması*. Retrieved from <https://www.cnnturk.com/dunya/putinin-hedefindeki-baskan>

Deniz, M. S., Doğan, M., & Katıtaş, S. K. (2020). Evaluation of the Effects of High Coastal Structures on Physical and Social Environment; Istanbul European Side Example. *Kent Akademisi*, 13(41), 37-49.

Egeth, H. E., & Yantis, S. (1997). VISUAL ATTENTION: Control, Representation, and Time Course. *Annual Review Psychology*(48), pp. 269-297.

Enzo Siviero, M. C., Martini, V., & Stocco, A. (2018). Haliç Metro Crossing Bridge. A Bridge in the Historical Heart of Istanbul. *10th International Symposium on the Conservation of Monuments in the Mediterranean Basin*, (pp. 677-689).

Gassner, G. (2009). Elevations, Icons And Lines: The City Abstracted Through Its Skylines. In J. D. In: Davis, *Researching the Spatial and Social Life of the City* (pp. 68-86). Citieslab London School of Economics and Political Science.

Guney, C., Girginkaya, S. A., Cagdas, G., & Yavuz, S. (2012). Tailoring a geomodel for analyzing an urban skyline. *Landscape and Urban Planning*(105), 160-173.

Hollander, J. B., Sussman, A., Lowittc, P., Angusc, N., & Situ, M. (2021). Eye-tracking emulation software: a promising urban design tool. *ARCHITECTURAL SCIENCE REVIEW*.

IPA. (2020). *Konkur İstanbul*. Retrieved from <https://konkur.istanbul/halic/>

İstanbul S.o.s Girişimi'nden Haliç Metro Köprüsü İnşaatına Tepki. (2012). Retrieved from Haberler: <https://www.haberler.com/istanbul-s-o-s-girisimi-nden-halic-metro-koprusu-3423685-haberi/>

Justin B. Hollander, A. S., Lowitt, P., Angus, N., & Situ, M. (2021). Eye-tracking emulation software: a promising urban design tool. *Architectural Science Review*, pp. 1-11.

Karagüler, S., & Korgavuş, B. (2014). Kent Kimliğinin Kent Peyzajı Üzerinde Oluşturduğu Etkiler, Silüetler, Görünümler ve Dengeleri. *Gazi Üniversitesi Fen Bilimleri Dergisi Part:C, Tasarım Ve Teknoloji*, 203-212.

Kozaman, S. (2007). Boğaziçinde Siluet ve Silüetin Belirlenmesinde Fotogrametri. *Yüksek Lisans Tezi*. İstanbul: YTÜ Şehir ve Bölge Planlama Anabilim Dalı.

Lavdas, A. A., Salingaros, N. A., & Sussman, A. (2021). Visual Attention Software: A New Tool for Understanding the "Subliminal" Experience of the Built Environment. *Applied Sciences*, 11.

lukić, i. (2011). Relation Between Creativity And Planned Regulation In The Process Of Shaping Urban Skyline. *limes: Borderland studies*, 2(4), 131-149.

Lynch, K. (2010). *Kent İmgesi [Image of the City]*. Türkiye İş Bankası Yayınları.

Sev, A., & Basarir, B. (2015). İstanbul: Impact of High-Rises on a Historic, Yet Contemporary, City. *CTBUH Research Paper*, 32-37.

Suarez, A. (2020). Subjective experience and visual attention to a historic building: A real-world eye-tracking study. *Frontiers of Architectural Research*(9), pp. 774-804.

Sussman, A., & Hollander, J. B. (2021). *Cognitive Architecture Designing for How We Respond to the Built Environment*. New York : Routledge Taylor & Francis Group.

Şevkin, E., & Gül, M. (2017). İstanbul Silüetindeki Değişim. *Tasarım + kuram*(23), 1-14.

UNESCO. (2010). *Decision 34 COM 7B.102 Historic Areas of Istanbul (Turkey) (C 356)*. World Heritage Convention.

UNESCO. (2012). *Decision 36 COM 7B.89 Historic Areas of Istanbul (Turkey) (C 356)*. World Heritage Convention.

UNESCO. (2012). Historic Areas of Istanbul (356). *WORLD HERITAGE CENTRE AND ICOMOS JOINT REACTIF MONITORING MISSION REPORT*.

UNESCO. (2013). *Decision 37 COM 7B.85 Historic Areas of Istanbul (Turkey) (C 356)*. World Heritage Convention.

Yüçetürk, E. (2001). Haliç Silüetinin Oluşum-Değişim Süreci ve Kentsel İmge Yönünden Ele Alınması. *Yüksek Lisans Tezi*. İstanbul: Yıldız Teknik Üniversitesi Fen Bilimleri Enstitüsü Şehir ve Bölge Planlama Anabilim dalı.

Yapı. (2014). *Süleymaniye Silüetinde de 16:9*. Retrieved from http://www.yapi.com.tr/haberler/suleymaniye-siluetinde-de-169_115707.html

Yazman, D. (2012). *UNESCO'dan Haliç teftişi*. Retrieved from Arkitera: <https://www.arkitera.com/haber/unescodan-halic-teftisi/>

Yerliyurt, B., & Hamamcioğlu, C. (2005). Entertainment and Culture Based Marketing of Cities in The Unifying World; Golden Horn Culture Valley Project, İstanbul. *AESOP 2005*.

Yesiltepe, D., & Kubat, A. S. (2017). The impact of bridges on spatial transformation of urban pattern: The case of Golden Horn, Istanbul. *24th ISUF International Conference: City and territory in the Globalization Age Conference proceedings*, (pp. 935-942). Valencia.

ACKNOWLEDGEMENT

Preliminary studies of this research were prepared within the scope of the "Growth and Transformation Problems in Historical Cities" course held at Yildiz Technical University in the 2020-2021 fall semester. I would like to thank coordinators Prof. Dr. İclal DİNÇER and Assoc. Prof. Dr. Oya AKIN for their endless support and contributions.

TRANSFORMATION OF MOUSHA VILLAGE, EGYPT: THE SHIFT FROM MUD-BRICK TO CONCRETE HOUSES.

ALYA Y. SABRY, LOBNA SHERIF

Alya. Y. Sabry, Graduate student, Department of Architecture and Environmental Design, College of Engineering & Technology, Arab Academy for Science, Technology & Maritime Transport, Cairo, Egypt, **Lobna Sherif**, Professor of Architecture, Department of Architecture and Environmental Design, College of Engineering & Technology, Arab Academy for Science, Technology & Maritime Transport, Cairo, Egypt

ABSTRACT

In Mousha, a rural village in Upper Egypt, dwellings were traditionally built of locally fired mud-bricks, recently reinforced concrete constructions have been replacing traditional dwellings. This paper addresses the contributing factors to such urban transformation, and how the inhabitants view both the traditional mud-brick and contemporary reinforced concrete houses as homes today. It also presents how this transformation affects the visual landscape of the domestic urban environment, by presenting the architectural features that were retained or modified in contemporary concrete buildings. The data was collected through site visits, diagrammatic and photo documentation, and face-to-face interviews.

The physical analysis of the traditional mud-brick and the contemporary reinforced concrete houses shows that essential social spaces of traditional plans were retained in contemporary ones with minor changes, contemporary facades have re-incorporated the signature traditional arches and columns of traditional façade openings. While some features have become obsolete: the dedicated spaces for ventilation in traditional houses were replaced by balconies and air conditioning.

The paper reveals how contemporary concrete houses are economically viable, as they solve a housing problem for extended families, and respond to modern-life social needs. While traditional mud-brick houses are regarded as heritage, a symbol of established history and family roots, and a receptacle of nostalgia, of fond memories and loved ones. Yet, they are viewed by some local residents of Mousha as dilapidated, unsuitable to contemporary life and a sign of unfortunate destitute families who have no means to move to contemporary houses.

While the younger generations aspire to a “modern” and independent life in houses that imitates the city, it is a difficult shift for the elderly who nonetheless feel obliged to provide contemporary homes for their children once the finances are available.

KEYWORDS:

Urban transformation; mud-brick house; socio-cultural aspect; social image; rural architecture; domestic change

1. INTRODUCTION: THE STATUS QUO IN MOUSHA VILLAGE

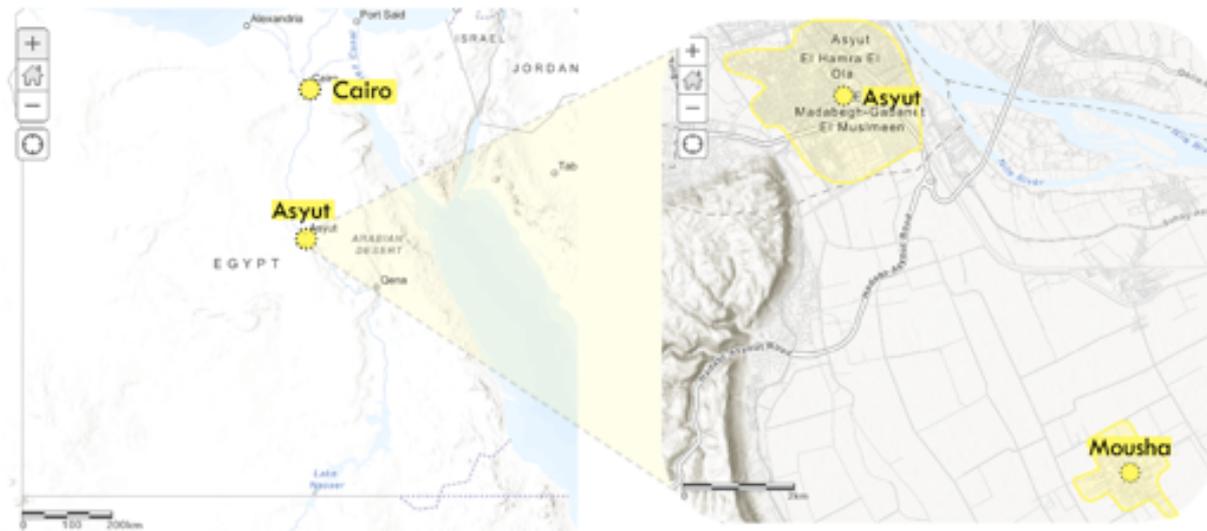


Figure 10 Asyut location in relation to Cairo in Egypt's map Figure 2 Mousha's location in relation to Asyut and the Nile river

Asyut is located in Upper Egypt, 390 km South of the Egyptian capital Cairo, and the village of Mousha –the focus of the study- is 12 km south of Asyut (fig. 1, 2). The temperature rises to 40 degrees Celsius on average in summer. In such region, lie numerous agricultural villages where, until recently, mud-brick houses -particular to this area- were the main dwelling style. The 'traditional' mud-brick masonry construction technique from hundreds of years (according to the mayor of Mousha and its inhabitants) was made from a mud mixture that was optionally fired for added strength. The houses were affordable, available, and self-built –i.e. collectively with the help of masons-, with a maximum of two storeys; they are still referred to as family homes. In time, contemporary concrete construction are replacing these houses in the village core and sprawled into the agricultural fields.

Mousha village is considered a relatively new village unlike its ancient neighbouring villages; inhabitants are involved in agriculture and other livelihoods. The agricultural fields surround the initial village that consists of houses arranged in a central pattern along organic rings. The newly urbanized expansions --built on agricultural plots-- take a linear form (fig. 3). Initially, all houses built in *Mousha* were mud-brick, as evident in the oldest area of the village centre. Amid urbanization of the village, the built environment is mostly concrete constructions with remnants of mud-brick houses.

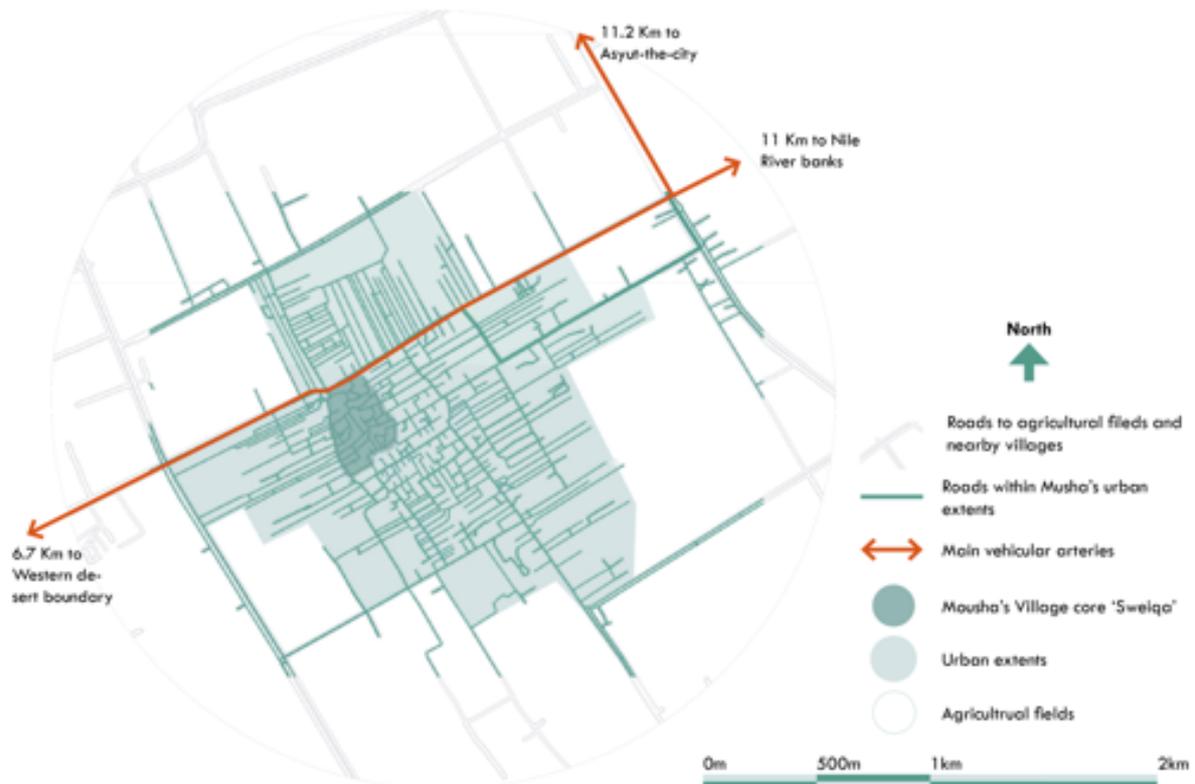


Figure 3 Mousha's map showing the village core, and the urban extents

This paper presents the transformation of houses and explain the conflict between the traditional built environment and the current lifestyles in the village of *Mousha* in Asyut. *Mousha* is rich with a large variety of mud-brick houses in terms of size, floor plan, and finishing exterior. In addition to the striking similarities between the facades of the traditional and contemporary buildings. *Mousha* was selected because it represents the transformation in agricultural villages across Egypt.

Currently, the village witnesses a noticeable transformation from 'traditional' mud-brick houses to 'contemporary' concrete constructions, where the former is decreasing rapidly, or abandoned for contemporary ones in the original village core or in the new urban expansions. Investigating human experiences and behaviour towards a place helps understand the place (Cresswell, 2009; Canter, 1977; Relph, 1976). The paper aims to understand the inhabitants' view of the mud-brick houses and contemporary houses, and how these houses perform as homes in the present times during the ongoing shift to concrete buildings. Accordingly understand the fate of the traditional environment, as both human behaviour and built environment are affected by one another (Maxwell, 1983; Lavin, 1981; Rapoport, 1976a; Proshansky, Ittelson and Rivlin, 1976a; Canter et al., 1975; Altman, 1975).

2. METHOD

This paper is based on a survey conducted during site visits to *Mousha* village in 2018, during a period of 6 days of field work. Traditional mud-brick houses were documented using architectural diagrams and photos while noting the spatial configuration, fenestration, façade decorations, and recording the activity settings practiced in and near the houses.

A total of 12 interviews were conducted: 7 of which included an invitation inside the house, 3 persons offered a ground tour around the village, one interview was conducted in a mud-brick school entity, and one was conducted with the mayor of the village. Interviews addressed socio-cultural aspects regarding the houses: in terms of aesthetics, decorations, performance, culture, lifestyle, associated social image, and symbolic meaning. Participants were former or current inhabitants of mud-brick houses, in addition to current inhabitants of contemporary buildings: 5 women (3 young women, and 2 adults), 9 adult men, and 5 elderly men. 11.6 hours of recorded interviews from field work were transcribed, translated, coded and written into individual interviews.

The survey and interviews were analysed by extracting underlying meanings and feelings from the inhabitants' quotes, which were then categorized into themes that represented what the inhabitants thought of each of the mud-brick and reinforced concrete houses (fig. 4). In addition to presenting the associated traditional architectural and physical features; the paper presents an analysis of the traditional physical features then traces how they evolved in the architecture of contemporary houses, which inevitably affected the visual urban scene and streetscape in the village.

Quote	Extracted themes	Extracted Physical feature/concept
Traditional houses are cooler than modern ones	Coolness, passive design	Traditional construction material
We feel good and happy here, in the rural lifestyle, everyone is around to help and support if something bad happened	Rural life suitability, social connection	—

Figure 4: Analysis sample: extracting themes and physical features from interviewees' quotes

3. LITERATURE REVIEW

In the agricultural villages in upper and middle Egypt, earth block buildings that date back to 4,000 years ago are still practiced today (May and Reid, 2010). The consultancy office Takween (Shama et al, 2016) documented vernacular mud-brick buildings in Upper Egypt for its historical and architectural value in "Documentation of the vernacular architecture of Shutb village (Asyut, Egypt)" (Shutb is five km north of Mousha). While research of the agricultural villages addresses mainly architectural aspects, this paper explores a typical agricultural village's built environment and the socio-cultural and temporal aspects of the inhabitants' lifestyle; and the values embedded in their vernacular architecture.

Architecture that is built without professional expertise, is referred to as traditional, vernacular, spontaneous, popular or folk architecture (El Sayyad and Arboleda, 2011; Klaufus, 2005; Senosain, 2002; Oliver, 1997). Oliver (1997) explains the vernacular architecture as typically built by the owner or the community using inherited traditional technologies "to meet specific needs," and respects the values, economics and the lifestyle of the producing culture. He defines it as "the architecture for the people and by the people" (Oliver, 2003). While Richardson says that vernacular architecture is unconsciously produced by craftsmen using knowledge passed down from generations (Richardson, 2001).

Vernacular architecture is addressed in anthropology, archaeology, sociology, and human geography (Asquith et al, 2005; Klaufus, 2005; Rapoport, 1969). It offers a rich opportunity to investigate the physical form in response to the cultural needs and environmental factors, the house form is "the consequence of a whole range of socio-cultural factors seen in their broadest terms" (Rapoport, 1969).

Traditional environments communicated well to their inhabitants, functionally and environmentally and held cultural meanings (Rapoport, 1969; Glassie, 2000) that are often neglected by 'Science' positivistic approaches (Rapoport, 1982; Jencks, 1977). A building can convey a set of symbols that may exceed the importance of the actual utilitarian function of the building (Canter, 1997), confirmed by cognition studies (Lynch 1960; Evans 1980). To predict the fate of traditional environments, and how people interact with them, the underlying meanings should be understood. By understanding a place or form, the personal, social and cultural significations are revealed. (Rapoport, 1982).

People shape their own built environments by compliance with social organization, conventions, and gender roles as much as by the economic functions of buildings. Rather than a direct consequence of the surrounding environment, a house form considers the aforementioned elements (El Sayyad and Arboleda, 2011).

Habraken (2006) believes that today's environment resembles a problem that requires a solution, hence, it dictates the usage of both modern building techniques and materials. Traditional communities of the globe are not excluded from facing serious pressures of globalization due to social, economic, and political changes (El Sayyad and Arboleda, 2011). They occasionally adopt modern building types, forms, and materials when facing new conditions; as modifications in the vernacular buildings are hindered by physical and social restraints (El Sayyad and Arboleda, 2011).

Social forces effectively impact the production of architecture, where social science research considers the aesthetics and semiotics related to architectural production (Donovan, 2014; Jones, 2009). Donovan suggests an understanding that does not freeze or idealize the vernacular in time, but looks beyond the exclusively aesthetic mould it is usually associated with. Based on these socio-cultural concepts, the vernacular should be allowed and expected to evolve to create the responsive environment needed for the community. Because "people leave unsatisfactory environments for those they regard as better" and are inherently supportive and responsive (Rapoport, 1987).

4. TRANSFORMATION IN MOUSHA

'Modernity' -as the inhabitants refer to our current times- has affected the inhabitants' general architectural taste; exposure to the television, internet and the cities made them desire similar looks. It also affected the availability and value of both building materials and their affiliated labour and craftsmanship.

Currently, traditional mud-brick houses are either inhabited by heirs or new owners, or adaptively reused as storage space or animal shelters. Some inhabitants replaced their traditional house with a contemporary one, or offered it for sale, or trade for land or another house. Some buy old houses to demolish them and build new ones instead. While others abandon them to avoid family inheritance conflicts (caused by the large number of heirs); or due to lack of funds to renovate, demolish or replace. However much poorer inhabitants are obliged to live in dangerously dilapidated traditional houses. Shifting to contemporary houses is a difficult choice for the elderly, holding on to family legacies, memories and the familiar lifestyle illustrate great attachment to such houses, yet they are torn between their duties to provide homes for their children and grandchildren. While the younger generations aspire to a "modern" and independent life in houses that resemble the city. Between holding on or repudiating the traditional houses, they remain a symbol of heritage, but the shift to modernity is considered inevitable and a natural course of life.

Modern factors contributing to the shift in the urban environment were essentially economic and social:

Housing security: The provision of houses for children was achieved by demolishing a traditional house, and replacing it with a contemporary multi-storey building so the children can later wed in and start a family, i.e. vertical architectural expansion was an appropriate solution during inflated land prices.

Economic viability: Penalties applied to building on agricultural land force people to build within the urban boundaries of the village. Thus one must find a vacant plot, or demolish a traditional house and replace with a new house -which is the easiest and less costly of the two options. While those who build in the fields probably have ownership and are incapable of buying a land within the urban boundaries. Building in the fields is also problematic and time consuming: “we spent a year trying to get a building permit and connect electricity.”

Neighbours can cooperate by demolishing their traditional houses, adding their adjacent areas and building a modern house to share as “it could cost a million pounds to find a vacant land and build anew”. Siblings can also build and share a modern building on their inherited land where each gets an apartment.

Social needs: There is a pressing need for nuclear families to live independent of the previous generation, and to live in apartments that suit modern life needs: family conflicts believed to be raised by families living together was no longer tolerable. Young women (brides) conditioned to get married in large apartments of 3 or 4 rooms at the least.

4.1 Transformation in the built scene

This section discusses the transformation apparent from traditional mud-brick houses to contemporary reinforced concrete houses, addressing how the traditional architectural features have taken form in the contemporary houses.

Changes due to the current social needs require architectural adaptation, a major manifestation of such is the change in concept of the family home. In contemporary houses, family homes take the form of a multi-storey apartment building, where the ground floor is often dedicated to a large guest reception (*dowar*), and each nuclear family reside in one apartment. An extended family of siblings may live in one apartment building, this implies that owning an apartment building is a luxury and an advantage, as others may not own their own land or not have the means to build a contemporary home and resort to owning or renting one apartment. The interviews showed that each family should live independently, but it is common that families still prefer to live close by.

4.1.1 Building Height

The construction method and materials used are the essential change in the domestic architecture of Mousha; as it shifted from the traditional bearing walls system of locally semi-fired mud-bricks to the skeletal beam and column reinforced concrete system. Consequently, contemporary houses can reach -as observed in the village- up to six floors, as opposed to the low-rise traditional houses of maximum two storeys (fig. 5). It is commonly noticed that mud-brick houses have added a third storey at a later time than their original construction time, a presumed solution for expansion.



Figure 5 Contemporary reinforced apartment building, next to a traditional mud-brick house in the village core

In contemporary houses, the ground floor is sometimes elevated by 45-100 cm from street level, which was an occasional feature in traditional houses.

Modern building on corner sites tend to employ two facades around the corner, or more if there are facade setbacks on more sides of the building, which is a different view than the facade continuum most associated with mud-brick houses.

4.1.2 Spatial Features

Spatial features in traditional houses can be categorized as living, functional and activity spaces. First: living spaces, the traditional guest reception '*dowar*' space has become so significant and has enlarged to possibly occupy most of the ground floor of contemporary houses (fig. 6, 7).



Figure 6: Typical *dowar* reception in mud-brick house



Figure 7: Enlarged *dowar* reception in contemporary house

The public domain in traditional houses included the '*dowar*' and the '*mandara*' (*guest bedroom*): which are not employed in the apartment system in modern houses, rather they are accommodate in the ground floor when it is not designed as an apartment. The '*rowag*', or the family chamber in which a nuclear family lived in is a removed feature that was specific to mud-brick houses, since modern families' lives independently in apartments. The '*mastaba*' or the seating bench at the doorstep remains a very common social feature in both housing types as it allows casual meetings with the inhabitants, without compromising the house's privacy. It is typically located publicly along the street, but in some modern houses that have gates and a garden, the *mastaba* is located inside the house's territory after the gates.

Second: functional spaces includes the '*manwar*' or the light (fig. 8). They added a signature look on the house facade, where it occupied a large opening with arches resting on columns. Due to the outdated function while using electric lights and air-conditioning, in contemporary houses, the *manwar* has been demoted to function merely as a pipe duct.

The traditional *manwar* seems to have been replaced by balconies, and they mimic the traditional facade's with arches and columns

Third: activity spaces includes animal shelters, that were optionally accommodated in traditional houses for those who own cattle, located far from the living spaces or in an open court, tied to built feeding basins. In contemporary houses, no animals can be sheltered inside the house, but an appended animal shed may be built near the house if needed. An accessible roof was very common in traditional houses, as it used to house the poultry coop, the baking oven shed and extra storage space. Roofs in contemporary houses have unfinished reinforced concrete structural



Figure 8: double-height *manwar* space from inside a traditional houses, overlooking the facade

columns for future addition of floors; it is used for drying laundry. Poultry coops may be inside traditional houses near the stairwell, while in modern day they are an optional space to be appended to the house.



Figure 9: Protruded brick design on roof parapet and arches in mud-brick house



Figure 10: Protruded bricks designs in arch formations for wall and balcony decoration in contemporary house

4.1.3 Facade Features

The houses facades in the traditional and the contemporary houses display the overall character of the village. Facade features are the exterior wall finishing, the architectural elements on the facade, and the details of doors and windows. The finishing exterior in traditional houses were either exposed mud-bricks, or plastered with lime and painted with wall paint. The same applies in contemporary houses, where either the construction bricks are left exposed, or the walls are plastered and painted, bright colours are encouraged, as well as drawings and stencilled patterns on the walls.

Traditionally, skilled craftsmanship was displayed by the two types of mud-bricks colour arrangements: semi-fired red and highly-fired black mud-bricks, currently this become obsolete, as the mud-bricks have been replaced by bricks that cannot articulate colour play (as factory-fired red bricks, or cement or lime blocks).

Decorative brick placements were very common in traditional construction, mainly protruded bricks accentuating door and window frames, flat or protruded arches, placing bricks at different angles, and less commonly carved brick formations. Most of these decorative techniques are still common in contemporary houses, especially when using factory-fired red bricks; except for the carved brick formation which was not seen at all (fig. 9, 10). These techniques were and still are applied most commonly in decorating the roof parapet, doors and window frames, in addition to the modern balconies.

In traditional houses, columns and arches were very common facade features, incorporated around window openings and mostly in lightwells (*manwar*) at the entrance. Lightwells had large facade openings and usually took the form of semi-circular, segmental or horseshoe arches, while resting on rectangular or circular columns made of highly-fired mud-bricks. While balconies were less common, they were protruded from the facade and usually not deeper than one meter, they had decorative woodwork on the balustrade.

In contemporary houses, an assembly of columns, arches and balconies have evolved and manifested through the modern-day balcony, made of reinforced concrete. Balconies are a significant feature: they are often large, and incorporate arches and columns in a manner similar to the ones apparent on traditional facades (fig. 11, 12). Various designs of arches are used: segmental, semi-circular, horseshoe, S-shaped (ogee), multi-foil and flat. While columns made of reinforced concrete are either rectangular or circular. Balconies are sometimes painted bright colours and other times use roman-style balustrades. Some inhabitants construct a double facade, where the outer one resembles one or a set of large arches with columns across the entire building facade, both made of reinforced concrete (fig. 13).



Figure 13: double-height concrete arch and circular column on entrance of contemporary home, bright facade colours and various balcony designs



Figure 11: sets of arches adorn windows and door in mud-brick facade, while arches and circular columns frame the lightwell's facade opening



Figure 12: arched designs via brick protrusions in contemporary facade in balcony arches and window frames with rectangular brick columns

Mashrabeyyas (wooden screens) were only common in older traditional houses, it was not frequently used and were often in dilapidated condition. Their usage had declined in mud-brick houses, and they were never revived even in the contemporary houses.

Grain storage on the roof was common in traditional houses, where they were stored in large mud vessels that are incorporated along the roof parapet, but this feature has been replaced by regular plastic barrels that are stored anywhere.

Doors and windows played a role in beautifying traditional houses, where high craftsmanship showed. Home entrance doors were wooden, and decorated with various carved designs: geometric patterns, plant figures, and most popularly a human figure holding a key or a cane. Typically doors were topped with semi-circular windows decorated with geometric patterns with ironwork, known as *qosra* (fig.14). In contemporary houses, traditional wooden doors are sometimes reinstated for their beauty and antique value, in addition to modern steel doors, which occasionally have patterns and plant figures. The door windows (*qosra*) are still a common option to be fixed with wooden or modern steel doors at the home entrances (fig. 15).



Figure 14: Traditional wooden carved doors with ironwork window on mud-brick façades



Figure 15: Modern steel door with organic patterns and window framed with brick protrusions on contemporary facade

Windows in traditional houses were wooden, with operable shutters and often divided horizontally, for light and privacy control. Sometimes, windows were covered with ironwork, which has decreased greatly in contemporary houses. Protruded mud-brick frames were used to decorate and this still applies nowadays, while the windows are wooden with shutters similar to traditional ones.

4.2 Inhabitants views of traditional houses

Mousha inhabitants have various and often conflicting views towards traditional mud-brick houses: such views were categorized into two sets of themes. One set labelled as 'positive' themes carries pleasant feelings and views encouraging traditional mud-brick houses. While the other set labelled as 'negative' themes projects

feelings of indifference and disinterest that criticize mud-brick houses. This paper will only address the themes most affecting the urban transformation, along with the architectural physical features associated with them.

4.2.1 Positive themes | Mud-brick houses

Positive themes have one of three natures: physical, social, or personal:

i. Physical themes:

Physical themes are related to the house, its design, construction, or attributes. The environmental performance of traditional houses is appreciated for their ability to mitigate the climate; as it was cool and breezy in summer and warm in winter. **'Thermal comfort'** and **'Passive design'** are the most frequently acknowledged themes. Traditional architectural features that served these themes are essentially the traditional construction material of mud-bricks, wood, palms, reeds and mud. As well as the construction technique of double mud-brick walls filled with mud (achieving thermal mass), reed-bundles reinforcements in walls, and spatial design features that ensured air ventilation and sunlight such as the lightwells (*manwar*).

'Craftsmanship', **'aesthetic'** and **'durability'** were manifested in the construction of traditional houses, facade, decorations, and accessories. The masons created sturdy and beautiful edifices at the same time, such as constructing double mud-brick walls, carving out circular columns, protruded frames and arches, decorating with various brick placements and designs. Attention to details such as the carved wooden doors and windows with their mud-brick frames and niches on the house facade.

Spatial themes included **'adequate floor plan'** and **'spaciousness'**, where the floor plan in mud-brick houses was regarded as 'different' or 'more accommodating' than apartments' plans in modern houses. Traditional floor plans served reinforcing social and family ties by design: house members were to gather in halls, wide hallways for dining and meeting, while visitors were easily welcomed either inside the house in the *dowar* (guest reception) and *mandara* (for sleep overs), or outside the house at the entrance bench '*mastaba*'. Apartment plans do not offer these spaces nor do they accommodate rural activities such as the animal shed, poultry coop or oven space, which remain outside of the apartment in the ground floor when needed.

Traditional houses provided large and well-connected indoor spaces, even small houses enjoyed high ceilings of 3.5 meters minimum, adequate ventilation and light sources, and accesses to the street and roof for extended house activities.

ii. Social themes:

Social themes places the mud-brick house into the social context: regarding how it is viewed by others, what it conveys and how it performs.

Traditional houses carry, **'home image'** that is signalled by the physical house, which is a great matter for Mousha inhabitants: it tells if the owners are rooted in the village or outsiders, if they are modest people or wealthy, if they are significant people or common. It directly links to two other themes **'social status'** and **'family roots'**. Keeping traditional houses is associated with saving family origins and social status, esteem, and rank in the community of Mousha. There is a prevailing view that owners of mud-brick houses have roots in the village since generations ago due to the fact that mud-brick houses are often old and have a long history. This **'antiqueness'** shows outdated construction materials, methods that current workers cannot incorporate, as well as skilful craftsmanship and aesthetic taste that are nearly extinct. These attributes often reflects **'expensiveness'**, and are easily visible to the public and people link them to the family's status.. For example, the wealthiest man in Mousha lives in his father's traditional house although "he is capable of building a palace, but he is comfortable with mud, wooden beams and planks." The village core, known as the oldest

neighbourhood in the village and home to the oldest houses, promotes a high social status for houses in this location. Architectural details endorse the link between antiqueness, social status and home image, such as wooden carved doors, large *dowar* spaces, ceramic floor tiling, using the expensive alternatives in traditional construction (for example wooden beams instead of palms), and facade details and decorations. People who lack traditional houses may resort to using old features in their contemporary houses: as designing rather large *dowars*, or reusing an 'antique' door, so that everyone who sees it would say that's a palace, a door that reads history"

Traditional houses -responded well to 'rural life suitability' especially that of the past, inhabitants claim that the past life was different than today's modern life, social rules and home appliances: "traditional houses were beautiful but only for its time." Living together as an extended family in one house was the normal living condition in the past and the family home accommodated it well leading to the extracted theme 'family ties': "traditional houses were a better environment for a family, there was no such thing as someone living on his own."

The family home also effectively connected social ties by design –as discussed in the 'adequate floor plan earlier, "in the village there is a busy social life in many ways; friends, family, occasions, and memories" in that sense the 'rural life suitability' sometimes coincided with the theme 'social ties' where it represented the social solidarity shared among the inhabitants, where people were all familiar to each other and help or support were easily attainable when needed: 'we know the house at the other end of the village', "the whole street was one family."

iii. Personal themes:

Personal themes included emotions inhabitants feel towards the mud-brick houses as 'nostalgia', 'attachment', and 'pride'; or a personal characteristic as 'financial security'.

'Nostalgia' was expressed when informants long for the mud-brick house, they miss the associated life style, memories, and living with the parents and siblings. The house resembles a receptacle for intimate memories: "your thoughts, your entire life, every good and bad memory is linked to the place, and to the family and friends, and to your upbringing." Signs of 'attachment' were apparent when people insist on keeping the mud-brick house and renovating it for fear of collapse: "our traditional house could collapse tomorrow, but we should maintain it until it does on its own, traditional houses should never be demolished or sold." Some people lived in traditional houses as validation for their attachment to it, yet, 'attachment' was also evident even if the inhabitant no longer lived in it: "I would keep the house and never demolish it, even if I moved to a contemporary home."

'Financial security' is apparent with owners of mud-brick houses, it is most manifested through the luxury of keeping the mud-brick house, while owning a contemporary home too. In which case, the traditional house can be used for other purposes (as storage). Often times the mud-brick houses are demolished as the land is needed for building a contemporary home or selling: "people who replaced the old houses needed the land plot."

Feelings of 'pride' may be viewed as a conclusive theme, it crosscuts previously discussed themes such as 'craftsmanship', 'social status', 'family roots', 'home image' and 'financial security'. The possession of a mud-brick house is a realisation of antiquity, strong family roots, high social status, fine taste and financial security. Antiquity is appreciated greatly: "this house is about 150 years old, such engineering in traditional houses can no longer be executed nowadays." Pride due to the skilled craftsmanship was felt: "they weren't masons, they were architects", as well as efficiency in thermal comfort: "the *manwar*, palm beams, lime plastering, and reeds in the wall construction turn the home to a paradise, better than modern air conditioners, and gives strength to the building." In addition to pride due to a lavish property: "a house such as ours when built around 1902 people thought there was a courtroom being built in Mousha. I'm keeping the mud-brick house as proof of my family's roots and heritage." Pride resulted from family legacies that endorse high social status: "our great

grandparents who built these houses, were protecting themselves, their origins and their history, the house's features resemble antiquity and history. It's a great honour to be able to point at a traditional family house and say this is my old family house."

4.2.2 Negative themes| Mud-brick houses

Mud-brick houses are regarded by some inhabitants as **'inadequate'**, and the main reason is their inability to reach more than two storeys: "we need an apartment for the boy to wed in, he can't build a new apartment in the old house, so he demolishes it and builds a contemporary one with steel foundations and columns, and each child lives in a floor." It does not help with the current **'housing issue'**, people resort to demolishing their mud-brick house to rebuild a contemporary house on the land, or selling it altogether with the land and build on the urban extents. Inadequacy may be regarding the structural condition of the house and the architectural taste it acquires, those with financial difficulties are obliged to live in dilapidated traditional houses.

To some, traditional houses are associated with an unsavoury environment: "we do not miss the traditional houses, with its narrow streets." This maybe elaborated by the fact that traditional houses were greatly present in the village core where the streets are indeed narrow and organic, rather than the wider streets located at the rest of the village where contemporary houses are present.

'Outdatedness' is another form of inadequacy, as a result of change of times, the modern life affected the lifestyle, as homes now face additional weights with its electrical appliances (water heaters, fridges, washing machines, ...etc.), water usage is no longer limited as before, and they could not handle stress caused by movement of cars and tractors: "traditional houses could not perform today."

Current marriage requirements from young women demands living in a contemporary apartment at least 3 or 4 rooms: "traditional houses have become an unacceptable situation for new brides, and a contemporary apartment is a condition to accept a marriage." This modern requirement resulted from recurrent family quarrels and disagreements in the family home.

'Abandonment' and **'adaptive reuse'** of mud-brick houses are direct consequences of the inadequacy of mud-brick houses as homes for current times as regarded by some inhabitants. Some traditional houses are abandoned due to the lack of financial ability to replace them, others are sold to be demolished and to utilize the land for building a contemporary house, and others were abandoned to avoid family and monetary conflicts, or for lack of heirs. Adaptive reuse of traditional houses maybe for a strictly functional purpose as to house one's livestock, but may also serve an emotional 'attachment' purpose.

4.3. Inhabitants views on contemporary houses

As with mud-brick houses, contemporary houses yielded two sets of themes: positive and negative themes.

4.3.1. Positive themes| Contemporary houses

'Home image' was a matter of concern regarding contemporary houses, especially in a stylistic sense where the display of the house encompassed varied features to grab one's attention. Inhabitants believe that contemporary houses have a wide range of design variations for facade decoration using different methods. Physical features most mentioned for this purpose is: wall plastering and adding (colored) wall paint, stucco decorations, lights, gardens, large gates, ceramic tiles or marble flooring, and most importantly is balconies with

curved edges and arches: “balconies are a trend, it is modernity, people copy it for a new modern style, everyone demolishes to rebuild as the new style states.” **‘Modernity’** is expressed through the need to follow the trend and modern styles via contemporary houses. Others believe that a ‘trend’ is a matter of material availability: “hollow bricks and white blocks are the most available and trendy bricks, hence replacing mud-brick construction. Firing mud-bricks have become very rare,” suggesting that the available materials are the most functional.

The above mentioned features also act signs for a high **‘social status’**, these features display ‘expensiveness’, some of the wealthy people demolished their traditional houses and built modern buildings or villas, which instigated a trend for others to follow.

‘City resemblance’ was a significant attribute in contemporary houses, and balconies essentially purposed copying ‘city’ buildings, such as those in Cairo, Asyut or Souhag, although they are not commonly used for seating. Contemporary houses offer **‘cleanliness’**: this roughly means getting rid of dust and dirt that are often accompanied by living in mud-brick houses, as wiping or washing the walls and floors with water had to be limited. Also, contemporary houses can easily fix ceramic floor and wall tiles, hence washing with abundant water. Other forms of cleanliness are plastered and painted walls, proper plumbing and a functioning bathroom, the option of air-conditioning and the absence of animals.

‘Spaciousness’ means either actual floor space saved from thick bearing walls (as in mud-brick houses) or the space one feels from living without the extended family. This leads to **‘independence’**, where living independently had appreciated advantages of not being controlled by the family hierarchy apparent in family homes.

‘Vertical growth’ is an attribute specific to contemporary houses, where the reinforced concrete allows building multi-storeys over the same land plot, hence accommodating more nuclear families.

4.3.2. Negative themes | Contemporary houses

‘Thermal discomfort’ maintained heat for prolonged times inside the house, hence fanning or air-conditioning is a mandatory fix for the intolerable heat. Contemporary houses were criticized for their **‘rural inadequacy’**, meaning that it did not respond to the social aspects of the rural lifestyle: “the apartment system is barely suitable for the repeated floors, yet the ground floor should be dedicated for a *dowar* hosting the family and neighbourhood.” It was implied that the apartment system did not easily encourage visitors to enter the home: “no room purposed *casual meetings* in the city apartments plan, where the wife and children are exposed”, as opposed to the mud-brick houses which had a specified space (*dowar*) at the home’s entrance. People resort to dedicating the ground floor to serve as a *dowar*, but this necessitates that the entire apartment building belongs to one family. Apartments plan lacked other spaces that served rural life activities, such as raising cattle and poultry: such spaces cannot be housed inside the house as the past.

Living in contemporary houses is often matched to living in the city where people are relatively disconnected and do not meet each other as much as they do in the rural life: “city life only revolved around the home and work, and everyone is anonymous”, “Your neighbour in the opposite apartment might be a stranger, he might be dead and you wouldn’t know.” Such living situation has led to **‘Social detachment’** and **‘family detachment’**: which are serious social concerns that people link to the associated lifestyle in contemporary houses: “people are rather disconnected and forget to ask about each other.”

5. CONCLUSION

Globally, architecture changes by virtue of time, requirements, and needs. As Habraken (2006) states that the needs of a rapidly changing society of modern times cannot be met by age-old buildings. In 2019, A statistical survey indicated that half of the world's population inhabit cities, signifying the global movement of urbanization; a movement whose architecture responds with "uncertainty and constant reinvention" (Ching et al, 2017). Ching et al believe that present-day architecture can be described as 'glocal' as the global and local are too intertwined. Traditional communities of the globe are not excluded from facing serious pressures of globalization due to social, economic, and political changes (El Sayyad and Arboleda, 2011). Traditional communities occasionally adopt modern building types, forms, and materials when facing new conditions; as modifications in the vernacular buildings are hindered by physical and social restraints (El Sayyad and Arboleda, 2011).

In the case of Mousha village, in Upper Egypt, traditional mud-brick houses are deserted in favour of contemporary concrete apartment buildings or "villas".

This paper offers to understand how the inhabitants of Mousha view both their traditional and contemporary reinforced concrete architecture as homes for the current times, what were the main factors contributing to the current shift of architectural spatially and physically and how this affects the urban environment.

The inhabitants have a clear opinion of mud-brick houses, which is associated with social image, financial affordability, and less importantly environmental performance. The houses were extremely well fitted to the hot arid conditions of the region, although a widely appreciated, acknowledged and money-saving feature of traditional houses, yet it seemed to have lost its importance.

Traditional houses are regarded as heritage, a symbol of established history and family roots, and a receptacle of nostalgia. Many of Mousha's wealthiest embrace their traditional house heritage, claiming that it is proof that their family has old roots in the village, yet they mostly own contemporary houses too. Contrarily, they may be viewed as rundown and belong to modest unfortunate people (when the house is dilapidated or small). Some think they have limited design decorations, cannot exceed two floors, and do not withstand modern day stresses of traffic and home appliances.

While contemporary houses are today's trend: they are clean and dust free, they have better home facilities as plumbing and floor tiling, they afford more room space, they can be decorated in various ways which can easily display expensiveness; and most significantly they can have balconies that look like the city. The houses are located in the expansion of the village towards the agricultural fields, newly built areas follow the original field plots in a linear grid.

Although some traditional houses may have a more preferable image to the inhabitants (than that of contemporary houses), yet such modern factors outweighs the traditional image, as they are far more practical, efficient and economically viable. According to the owner's preferences, financial ability allows to build a modern functioning home, while simultaneously keeping the traditional one either as cherished treasure or abandoned heritage. Traditional houses may not be totally replaced until they collapse due to aging, excessive added loads, water use, and vibrations from the street, but the need to secure a contemporary house is evident once the finances are available, especially a multi-storey one.

To understand what might become of the traditional environments, and how people interact with them, it is significant to understand the meanings underlying them (Rapoport, 1982). Informants in Mousha explain their intimate built environment -home- along different themes, their perceptions are multi-layered. I propose three main layers of meanings: the first layer of understanding was the inhabitants' instant response to the 'home' unit/type, whether mud-brick or reinforced concrete. Which seemed obviously linked to time: where mud-bricks resembles the past, and the reinforced concrete resembles the present and often the future. The temporal

aspect is first mentioned in their discussions, along with all that it entails, good and bad. The family home, living together, limited and crowded room space, recurrent conflicts, nostalgia, and proud family status that should be passed down to generations. As set against living outside the larger family, better home facilities, independence and control of one's own life, more space and more decorating features.

The second layer associates the 'home' with street types within *Mousha*. Mud-bricks are only seen in the village core, with its distinct urban pattern of narrow and organic alleys and dead ends. While reinforced concrete buildings can also be found in the village core, but are heavily spread in the village edges, outskirts, agricultural fields, and all yet-to-be urbanized areas. Street types mattered as it affected social connections, general ambiance and environmental feels. People actually chose to live near each other and made sure they could relatively fulfil their social needs in the contemporary houses.

The third layer reflects the image of the home into the concept of a village versus that of a city. Comparing the entirety of *Mousha*, village life, and rural style to the modern city and urban architectural style, via comparing the mud-brick houses to the reinforced concrete buildings or villas. A notion that in itself shows how contemporary buildings are effectively linked with 'the city' image in their views of modernity. Attempts to resemble the city and online pictures of houses and decoration was a means to display one's modernity and fortune; or simply personal preferences and tastes. Balconies well responded to that needed image: "copying 'city' buildings", although actually using it for seating or looking to the street was not part of their social norms.

A combination of these layers of understanding: the 'home' image and meanings were best embodied in the architectural type and features. Appearances matter, the house construction status, façade, entrance door, decorative features, are all considered important aspects in both building typologies. In traditional houses, this was achieved by a modest façade of high craftsmanship of detailing and decorative brick layering: courses of red and black bricks, playful brick placements, wooden carved doors, decorative ironwork, and most importantly arches rested on columns. While in contemporary houses, it was achieved by color painted wall finishing and patterns of paint, stucco decoration, large doors and building gates, decorative brick placements and most particularly curved balconies covered with arches of various designs.

Habitat selection is of the greatest effects of the environment on human behavior (Rappoport, 1987). People shape their own built environments by compliance with social conventions, gender roles, and the economic functions of buildings. A popular opinion implied that the shift to modern houses was inevitable or "against the people's will", as "generations change; what comes next should be more modern." Aspirations to live independently has resulted in multi-story apartments rather than family homes, and to seek urban livelihoods (instead of farming) has slightly touched on the streetscape, as evident from the ground-floor uses in buildings that are now increasingly accommodating shops and businesses. While in regard to the general appearance and streetscape: a bygone image of two-stories continuum mud-brick buildings, is replaced by eclectic sets of mud-brick and reinforced concrete buildings, of different heights, colors and gaps between buildings. The homogeneous feel of natural materials of mud-bricks and wood is contrasted against heavy material and texture of the bare concrete and striking colors of painted walls. Yet, some elements of resemblance remain to unite both pictures, such as the arches, columns and protruded brick frames.

The village represents a national shift that exemplifies the rural aspiration towards modernity in villages across Egypt. *Mousha* has evidently transformed: the village lifestyle and built environment lingers between rural agricultural life and modern urbanism.

REFERENCES

Altman, I., 1975. *The Environment and Social Behavior: Privacy, Personal Space, Territory, Crowding*. Monterey: Brooks/Cole Pub. Co.

Asquith, L., Vellinga, M. (eds.), 2005. *Vernacular Architecture in the 21st Century: Theory, Education and Practice*. London: Taylor & Francis.

Canter, D., 1997. *The Facets of Place: Toward the Integration of Theory, Methods, Research, and Utilization*. Advances in Environment, Behavior and Design book series (volume 4) 109–47. doi:10.1007/978-1-4757-4425-5_4

Canter, D., Peter, S., & Ian, G., 1975. *Environmental Interaction: Psychological Approaches to Our Physical Surroundings*. London: Surrey University Press.

Ching, F. D. K., Mark, J., & Vikramaditya, P., 2017. *A Global History of Architecture*.

Cresswell, T., 2009. *Place*. International Encyclopaedia of Human Geography: 169–77. doi:10.1016/b978-008044910-4.00310-2

Donovan, K., Gkartzios, M., 2014. *Architecture and Rural Planning: Claiming the Vernacular*. Land Use Policy, 41: 334–343. doi:10.1016/j.landusepol.2014.06.013

Evans, G.W., 1980. *Environmental Cognition*. *Psychological Bulletin* 88(2): 259–287. doi:10.1037/0033-2909.88.2.259

Glassie, H., 2000. *Vernacular Architecture*. Philadelphia: Material Culture.

Habraken, N., 2006. *Questions That Will Not Go Away: Some Remarks On Long-Term Trends In Architecture And Their Impact On Architectural Education*. Open House International 31: 12-19. doi:10.1108/OHI-02-2006-B0003

Ibrahim, K., Akl, N., Shama, H., Zohdy, M., Abou-Sira, M., Farouk, K., Halim, Y., Omar, A., & Salama, A., 2017. *Documentation of the Vernacular Architecture of Shutb Village (Asyut, Egypt) Mission II Report*. The British Museum, London.

Jencks, C., 1977. *Modern Movements in Architecture*. Harmondsworth: Penguin Books.

Jones, P., 2009. *Putting Architecture in its Social Place: A Cultural Political Economy of Architecture*. Urban Studies: 46(12): 2519–2536. doi:10.1177/0042098009344230

Klaufus, C., 2005. *Bad Taste in Architecture: Discussion of the Popular in Residential Architecture in Southern Ecuador*. Paper presented at the Doing, thinking, feeling home: the mental geography of residential environment, The Netherlands, 14-15 October 2005.

Lavin, M.W., 1981. *Boundaries in the built environment: Concepts and Examples*. *Man-Environment Systems*, 11(5-6): 195–206.

Lynch, K., 1960. *The Image of the City*. Cambridge: The MIT Press.

Maxwell, R. J., 1983. *Contexts of Behavior: Anthropological Dimensions*. Chicago: Nelson-Hall.

May, J., & Reid, A., 2010. *Buildings Without Architects: A Global Guide to Everyday Architecture*. New York: Rizzoli.

Oliver, P., 1997. *Encyclopaedia of Vernacular Architecture of The World*. London: Cambridge University Press.

Oliver, P., 2003. *Dwellings: The Vernacular House Worldwide*. London: Phaidon, Press Limited.

Proshansky, H.M., Ittelson, W.H., & Rivlin, L.G., 1976. *Environmental psychology: People And Their Physical Settings*. New York: Holt.

Rapoport, A., 1976. *The Mutual Interaction of People and Their Built Environment: A Cross-Cultural Perspective*. Mouton: The Hague.

Rapoport, A., 1969. *House Form and Culture*. Englewood Cliffs: Prentice-Hal.

Rapoport, A. 1987. *On the Cultural Responsiveness of Architecture*. Journal of architectural education 41, no. 1: 10–15. doi:10.1080/10464883.1987.10758460

Rapoport, A., 1982. *The Meaning of the Built Environment: A Nonverbal Communication Approach*. Beverly Hills: Sage Publications.

Relph, E.C., 1976. *Place and Placelessness*. London: Pion.

Richardson, V., 2001. *New Vernacular Architecture*. London: Laurence King.

Senosiain, J., 2002. *Bio-architecture*. Oxford: Architectural Press.

Sayyad, N. El., & Arboleda, G., 2011. *The Sustainable Indigenous Vernacular: Interrogating a Myth*. Aesthetics of Sustainable Architecture, 2011.

EXPLORING BUILT ENVIRONMENT FEATURES FOR THE IMPROVEMENT OF THE SOCIAL LIFE OF ELDERLY AND YOUNG ADULTS IN URBAN AREAS IN INDIA, IN THE COVID-19 SCENARIO: A QUALITATIVE STUDY

SUPARNA SAHA

DR. SUPARNA SAHA, ASSISTANT PROFESSOR, DEPARTMENT OF PLANNING AND ARCHITECTURE, NATIONAL INSTITUTE OF TECHNOLOGY, ROURKELA, INDIA

ABSTRACT

The COVID-19 pandemic has severely impacted and forced upon drastic changes in all spheres of our lives. In comparison to other age groups, the imposition of home quarantine and the associated social isolation is far more detrimental to the well-being of the elderly and the young adults. Conventionally, the educational institutions, where most of the young adults in urban areas spend a significant amount of their time, provide them with the opportunities to form social relationships and involve in meaningful social activities. The shift to the online education system, is disrupting their social lives and also leading them to withdraw from active outdoor lives and immerse in sedentary virtual worlds, which might lead to harmful long-term consequences on their overall psychological well-being.

The crucial need for outdoor activities and social communication on the well-being of the elderly has been established by a plethora of studies. Additionally, the change in the traditional Indian family structure due to urbanisation, has led to the shifting of adult children away from their parents, leading to the loss in the family based care-giving and social support system for the elderly population. Besides, in contrast to other age groups, a substantial population of the Indian elderly, are still not well-acquainted with social media, and therefore, are suffering from higher degrees of social isolation, deprived of physical communication with their social peers.

The pandemic has made us realize the immense need to equip our home and the immediate surrounding or neighborhood, with essential infrastructure or built environment features, to cater to the requirements of our daily well-being. The present study, through discussions with small groups of individuals belonging to young adults and elderly population in India, first identifies how the pandemic has changed the pattern of their daily social engagements and then explores the features that they desire to be incorporated in their built environment to improve their social lives.

INTRODUCTION

The COVID 19 pandemic has disrupted the lives of everyone across the globe. The lockdown, travel restrictions and social distancing norms has led to the reconfiguration of our everyday lives. The social distancing guidelines has limited our contact and communication with friends, family, relatives, colleagues leading to a sense of isolation and loneliness. Considering the requirements and daily activities, this imposition of home quarantine and the associated social isolation was observed to be far more detrimental to the well-being of the elderly and the young adults, in comparison to other age cohorts.

Educational institutes provide the youth with opportunities to engage in social interactions, physical exercise, etc. which help in dealing with the negative consequences of stressors (Rosen, Rodman, Kasperek, Mayes, Freeman, Lengua & McLaughlin, 2021). However, with the closure of educational institutions, and the evolution of the digital sphere of learning, the youth have been deprived from opportunities of direct communication with same age peers, and have been compelled to immerse themselves in a world of virtual reality, where social interactions take place only on mobile gadgets and computers. Though internet based communication is increasing human connectivity and spanning it beyond the limited acquaintances of the real physical world (Menezes, Arvanitidis, Costa, & Weinstein, 2019), it is debatable if these virtual social connections are increasing or decreasing the quality of social relationships.

The imposition of strict physical distancing, restrictions on outdoor visits, fear of interacting with outsiders, closure and limited functioning of organizations providing health-based, social and emotional support to the elderly have cut-off many older adults from their existing social networks, aging network services and the health-care system, through which they were accustomed to fulfill their physical, emotional, and social needs. As observed in existing studies, the elderly is more vulnerable to loneliness and social isolation due to loss of connection with colleagues, family members and friends arising from the age based restrictions imposed upon their physical activities.

Presently, with the vaccination of the world wide population and the decrease in the severity of the impact of the disease, the world has started to retrace its steps back to a 'neo-normal' scenario, by restructuring daily habits and everyday life. However, until there is a permanent cure for the disease, the practices of cautious social distancing and restrictions in outdoor activities arising from fear and apprehensions about the pandemic will not subside any time soon.

Studies have established the role of spatial planning and urban design on public health, sociability and well-being. The built environment and open spaces in a city influence the life of its residents, as it is the factor, responsible for determining the opportunities which can be provided to implement their preferred list of daily and occasional activities. An environment that inspire people to take leisurely walks, and spend time in open spaces increases opportunity to engage in social interactions (Menezes et al., 2019). Engagement in casual spontaneous conversations in natural landscapes and open spaces help people relax and release their stress (Lau, Gou, & Liu, 2014).

The home isolation, social distancing and restrictions in outdoor activities imposed by the pandemic has established the immense need to equip our home and the immediate surroundings or neighborhood, with essential infrastructure or built environment features, to cater to the requirements of our daily well-being.

This paper, through discussions with small groups of individuals belonging to the age group of young adults and elderly population in India, attempts to identify how the pandemic has changed the pattern of their daily social engagements and also explores the features that they desire to be incorporated in their built environment to improve their social lives.

THE SOCIAL LIFE OF THE YOUTH AND THE ELDERLY DURING THE COVID-19 PANDEMIC

In this paper, we shall refer to people belonging to the age group of 18 to 25 as young adults and the people belonging to the above 60 years of age as 'older adults' or 'elderly'. The young adults are at the stage in their lives when they need to develop new acquaintances, friends, and need real world places to meet and build new social relations (Lips, 2021). Besides, the associated issues of increase in unemployment, and uncertain job opportunities increases the vulnerability of young adults towards depression.

With the restriction on conventional leisure activities, Lips (2021) assumes that the young adults may have come up with alternative leisure activities to keep them occupied in their domestic environment. While some might consider their experience at home as restriction, some others might have considered this lockdown as a welcome release from their scheduled commitments and obligations. The ambience at home, relationship with family members, etc. have been observed to be important factors influencing the experience of social relationships at home for young adults during the pandemic.

The numerous restrictions on outdoor activities imposed to decrease the risk of being infected by the COVID-19 virus has a detrimental effect both on the psychological and physiological functioning of the elderly (Kasar & Karaman, 2021). For the elderly, in general, limited contact with other people leads to the loss of social support, which may lead to loneliness, consequently leading to depression in the elderly (Kasar & Karaman, 2021). Besides, in India, a substantial group of the elderly are still struggling to cope with the changes in the social and family structure which has led to a loss in their intergenerational family based support system. Additionally, many older adults do not have the resources, like access to smart technology, etc., required to deal with the stress of COVID-19 (Vahia, Jeste & Reynolds, 2020). Considering the increased vulnerability of the elderly, it is necessary to explore how the elderly has coped up with the reconfiguration of their social engagements in the pandemic.

STUDY METHODS

The present study first attempts to understand the changes, issues and reconfigurations in the social behavior pattern of young adults and the elderly during the pandemic and formulate policies to promote psychosocial well-being during their stay-at-home period. Understanding the changes in the types of daily social activities of these age groups of population can help in identifying the social activities and inclinations that these groups of people are most likely to be involved in and design built environment features with adequate preventive measures that can enable their safe involvement in the same. In order to achieve these objectives, the study involved qualitative discussions with two small groups of young adults and elderly (eight to ten participants in each group). The discussions consisted of two parts: a) understanding of social behavior and activities before and during the pandemic and b) changes that may be brought about in the public space and built environment to enable and encourage involvement in social activities of their choice. Besides these, the discussions also included questions on the family type (nuclear or extended) and the details of the family members with whom maximum time was spent with during the pandemic.

STUDY FINDINGS

Social behavior and activities of young adults

The respondents belonged to 19 to 24 years of age. Most of the respondents belonged to nuclear families, which comprised of their parents and siblings. All the respondents were university students of National Institute of Technology, Rourkela, who stayed in the university campus before the pandemic. The outdoor social activities of the respondents, before the pandemic, were mostly limited within the campus boundaries, due to unavailability of adequate socializing or leisurely opportunities outside the campus (in Rourkela). Within the

campus, the most common socializing activity for the students was engagement in leisurely chats with classmates and peers in hostel mess, canteens, etc., where they had the opportunity to meet and interact with intra-department students. Sports activities, hobby clubs and groups were also observed to serve as a constructive opportunity for socializing with like-minded peers. On some weekends, visiting the main town for watching movies and shopping also contributed to the opportunity of socialization.

During the pandemic, all the respondents experienced a drastic change in their daily lifestyle when they had to confine themselves to their home and neighborhood. Most of the respondents noted that they started engaging more in indoor hobbies and started learning new skills. The time spent on social media increased to three fold during the pandemic. All the respondents agreed that they started bonding more with their family and siblings. Mothers and siblings were the ones with whom they spent most of their time. It was interesting to note that one of the respondent also started to learn gardening and fish farming with his siblings at their home.

To summarize the observations from the interviews, the need for developing social connections and maintaining relation with peers was observed to be important for the well-being of young people. As observed by Lips (2021), besides the resources available in home to maintain social relationships, like computers and mobile phones with internet connections, their relationships with other family members is also significant for the well-being of the youth. Mothers and siblings are observed as the most important people for communicating and connecting to in a family.

Social behavior and activities of older adults or elderly

The respondents belonged to the age group of 60 and above. Most of the respondents belonged to nuclear families, with adult children who lived in other cities either for educational or for job purposes. Before the pandemic, the social activities of most of the respondents comprised of visiting and meeting neighbors and relatives. One female respondent who lived in a housing society, regularly participated in organizing small parties with her neighbors and was a member of a ladies' group in her housing society. Another female respondent was a member of a spiritual organization and spent her weekends visiting the Ramkrishna Mission and engaging herself in associated tasks and activities. One of the respondents regularly participated in musical events in and around her neighborhood. Visiting the daily market, taking leisurely walks in the neighborhood, and meeting neighbors at local tea stalls were the most common socializing activities for the male respondents.

During the pandemic, with the imposition of the lockdown, almost all the socializing activities had come to a stop. Though some of the male respondents went outside their homes wearing masks and maintaining social distancing norms, their socialization activities were limited as most of them feared of getting infected with the disease. In order to cope with the vacuum in their social sphere, the respondents learnt the use of social media (Facebook, YouTube, Instagram, WhatsApp, etc.) . One of them had even opened up a cooking channel in YouTube with the help of her daughter. However, respondents who had adult children staying away from them due to educational purposes noted that the lockdown served as a boon in having their children back home with them and cherished the good quality family time that they could spend together during this pandemic.

Desired neighborhood infrastructure identified by the youth and older adults or elderly

Parks, open space, and large community spaces were identified as the most desired spaces for conducting social activities and meeting neighbors or friends in the pandemic by both age groups. Large open spaces provide ample space for maintaining the required social distancing while meeting people and spending time with them. The lack of open spaces in the present urban development scenario has led to a loss of breathing space in residential settlements. The pandemic and its impact in our lives has made us realize the significance of adequate

green and open spaces in a neighborhood. The need for organized spaces for community activities was also realized from the present study respondents.

CONCLUSION

The impact of COVID-19 on the social life of youth and older adults or elderly is likely to consequently affect their mental well-being. In this scenario, it is essential to understand how these age groups have coped up with the present crisis and their additional requirements for catering to their social needs. Though the importance of digital connectivity has emerged as essential for social connectivity of both the age groups, since home and neighborhood have become essential to our lives in the pandemic scenario, it is essential to equip the same with necessary features required to cater to the requirements of our well-being. The present study identifies the changes in the social activities of the two most vulnerable age groups and the built environment infrastructure required to cater to the same. The study findings can be used by new policy makers to develop guidelines on neighborhood design to provide the required infrastructure for the social well-being of its residents.

The study limitations include the sample size, technique and distribution since the sample collection was based on access to digital infrastructure and voluntary participation of the respondents. Another limitation of this study is the fact that all the respondents belonged to middle and upper middle income groups.

Further qualitative studies focusing on in-depth analysis of youth and elderly well-being belonging to different socio-economic strata, with and without access to digital connectivity, during the pandemic, can be conducted to help in the formulation of guidelines catering to their social relationship.

ACKNOWLEDGEMENT

The author thanks the National Institute of Technology (NIT) Rourkela, India for providing her with the support required for the present paper. The author also expresses her gratitude to the students of the Department of Planning and Architecture, NIT Rourkela, India (Debasish Das, Devadathan, Mounika, Prajna Priyadarshinee Jena, Rajdeep Saha, Riya Ravindra Bangar, Shameem Ali, Sweta Parimita) and the other elderly respondents for participating in the survey process conducted for the present paper.

REFERENCES

- Chen, J. H. (2021). Daily social life of older adults and vulnerabilities during the COVID-19 pandemic. *Frontiers in Public Health*, 1166.
- Kasar, K. S., & Karaman, E. (2021). Life in lockdown: social isolation, loneliness and quality of life in the elderly during the COVID-19 pandemic: a scoping review. *Geriatric Nursing*, 42(5), 1222-1229.
- Lau, Stephen Siu Yu, Gou, Zhonghua, & Liu, Yajing. (2014). Healthy campus by open space design: Approaches and guidelines. *Frontiers of Architectural Research*, 3(4), 452-467.
- Lips, A. (2021). The Situation of Young People at Home During COVID-19 Pandemic. *Childhood Vulnerability Journal*, 3(1), 61-78.
- Menezes, Marlucci, Arvanitidis, Paschalis, Costa, Carlos Smaniotto, & Weinstein, Zvi. (2019). Teenagers' perception of public spaces and their practices in ICTs uses *CyberParks— The Interface Between People, Places and Technology* (pp. 109-119): Springer.

Rosen, M. L., Rodman, A. M., Kasperek, S. W., Mayes, M., Freeman, M. M., Lengua, L. J., ... & McLaughlin, K. A. (2021). Promoting youth mental health during the COVID-19 pandemic: A longitudinal study. *PloS one*, *16*(8), e0255294.

Vahia, I. V., Jeste, D. V., & Reynolds, C. F. (2020). Older adults and the mental health effects of COVID-19. *Jama*, *324*(22), 2253-2254.

CONCEPTION OF RECREATIONAL URBAN SPACES' IMPACT ON CHILDREN'S PLAY PATTERN AFFORDANCES AND PERCEPTIONS

MAYA ELNESR

Maya Elnesr, PhD student, CRESSON Laboratory (Centre de recherche sur l'espace sonore et l'environnement urbain), Grenoble School of Architecture, France.

Lecturer assistant at Arab Academy for Science Technology and Maritime Transport, Faculty of Engineering, Department of Architecture and Environmental Design, Cairo, Egypt.

ABSTRACT

In the recent decades, modern societies noticed an intense declination of play opportunities in outdoor spaces due to poor playing environments, structured activities, and adult supervision. In addition, relatively few studies have investigated children's place preferences and lived experiences in the newly planned recreational urban spaces within our modern city.

Accordingly, this research aims to investigate the potential impact of different conception of recreational urban spaces on children play behavioral patterns and their perceptions. The study involves the investigation of two recreational urban spaces, in France and Egypt (i.e. Châtelet-Les Halles and Heliopolis Sporting Club "HSC", respectively). Fieldwork was conducted to middle childhood children through three phases. It included structured child-centered behavioral observations complemented with behavioral qualitative observations; perceptual cognitive skill activities, including drawings as well as photography; and informal interviews associated occasionally with child-led walks. Collected data is analyzed within the shadow of "Trialectic Theory of Space" (Lefebvre 1992) and "Affordances theories" (Gibson 1979) to fill in the gap between conceiving designed spaces by designers and children perception to the lived ambiance of their surrounding environments. The results suggest a set of spatial potentialities, according to children space preferences, that might open a new perspective of child-space conception in the city; not as closed islands but rather as child-friendly environments.

KEYWORDS: Recreational Urban Spaces, Conceived Space, Spatial Porosity, Perceived Space, Spatial Typologies, Lived Ambient Envelop, Spatial Potentialities, Play Behavioral Pattern.

1. INTRODUCTION

“Children will play everywhere and with anything” (Ward, 1978). Through play children explore, discover, and primarily understand the world around them. Children create their own rules, their own themes and even their own settings through free play. Nevertheless, children develop a different attitude to the place and adults have to respect their own vision in perceiving their places. Play is linked to overcoming fear in everyday situations and it helps in decision making, discovering interests, brain development so as enhancing academic learning (Lester and Russell 2008). In addition, research linked specific aspect of children's development to specific types of play, where according to literature, it classifies play behavior into two types cognitive play types and social play types (Piaget, 1962). Children’s play behavior at each development level vary across cultural context, conditions, and situations (Kuhaneck & Miller, 2008).

Thus, for example, regarding the outdoor natural environment and play behavior, Fjørtoft (2004) stated that spending time in the natural environment is important in creating a sense of belonging and identity, which improves mental health. As for modern society and the declination of community play behavior, Elkind (2008) claimed that after the passage of modern town planning and in particular functionalism favorable to all cars, the increase in road traffic and with the rise of environmental issues, a strong desire to put the pedestrian at the center of development projects. Thus, in modern cities, the play environment for children has changed from previous generations and public recreational space is cited as important play arena that advocate traffic calming measures to help opening up to children. Moreover, a certain form of standardization of public spaces that we can observe. Thus the same types of layout of public places can be found in Budapest or Copenhagen as in Montreal, New York or Lyon, the same territorial spatial definition, degree of opening and closing of spaces between recreational urban spaces and the surroundings, permeability between sub-spaces within the main public space, the same pedestrian pathways, the same public benches "designated" to interfere with the naps of the homeless and the thus push back to the periphery (Bruand, 2019). Similarly, a real desire to control childish practices in order to anticipate forms of danger by encircling children in play areas within public spaces, where we observe a form of generalization and safety control discourse that arouses in communities, (Lacey, 2007) and children usually surrounded in places peculiar to children even within the public spaces.

Consequently, Spilsbury (2005) argues that public spaces have come to be recognized as adult space and children must be valued in public space and that they must be allowed to have safe, informal areas where they can hang out without adult supervision. Accordingly, researchers should not underestimate the concept of children’s places during analyzing children’s play experiences. In fact, the child's experience in the city is considered to be complex and has many facets, that’s why the proposed approach to tackle this problem is multidisciplinary and crosses several fields like geography, anthropology, psychology of child development so as environmental psychology. Children have their own way of perceiving, experiencing and understanding urban spaces, different from adults. In order to understand the child's space in the city, it is important to appeal to the sensitive ecological approach that allows to associate the ambiance, the spatial configurations, children’s body in space, their movements, and their perceptions to physical properties of the surrounding environment (Breviglieri, 2014). Consequently, a gap is highlighted between the intended designed spaces by adults so as designers for children and the perceived as well as lived experienced spaces by children themselves, keeping in consideration the culture, social, so as previous background (Gibson, 1979, Bourdieu, 1986, Lefebvre, 1991, Heidegger 1996). In terms of the importance of fulfilling the needs and priorities of children, a major consideration is done for understanding which places attract children for play in their entire everyday environment and what are the intrinsic qualities of those places are important for their development.

Based on the assembled literature, this research aims to study the impact of different conception, relying on three layers. First, the study objectives to investigate the impact of the spatial porosity, elaborated as the outer boundaries’ degree of closure and openness of different urban spaces and inner spatial permeability on the children presence. Secondly, the study examines how different included spatial typologies, (assembly zones and

open spaces, playgrounds, pathway and alley networks, as well as gardens and green belts) promote different children's patterns of play and perception of their environment.

Third, this research helps to understand the potential role of different aspects of spatial potentialities forming different configurations, independently from the spatial typology itself, on the resulted sensible experience and ambiance of children's lived spaces by offering a greater degree of potentiality, freedom, and a variety of play opportunities than others. In particular, the set of aspects of spatial potentialities that the study suggests to be investigated are: (1) Entity of activity setting, (2) Flow continuity and fluidity, (3) Diversity of ground materials, (4) Topographic Variability, and (5) presence of different urban spatial features.

2. METHOD

2.1. Data collection

From the methodological point of view, this study intends to rely on an ethnographic approach, adopting multiple data gathering methods described as "mosaic method" that combine quantitative and qualitative techniques (Punch 2002). This combination provides a clear picture to children play experience in different spaces that enables the development of a crossed perspective on children appropriate space that reflects their lived spaces differently from adults.

Fieldwork proceeded through three phases. For each urban space, a sample of two groups was engaged in the field work with a total number of 46 randomly selected children. Each group encompassed equal number of girls and boys. Children of "middle childhood" age group, between 6 to 12 years, were the active participants of this study. This age group is the most important users of outdoor public spaces (Chawla 1992). This age range corresponds to the "concrete operational stage" of development, during which children develop the sense of peers; begin to favor play in groups; and diminishes family attachment (Piaget 1962). Children knew that participation in the study is voluntary and that they are free to change their minds and withdraw from the research at any stage (Einarsdottir 2007). Additionally, consent for participation and children ages were provided by parents.

The first phase of data collection encompassed child-centered structured behavioral observations. This was held to Group A (30 children) to measure the occurrence of free play types without parental interference, in the two urban spaces. Structured observations were complemented by behavioral qualitative observations through descriptive field notes and sketches to observe the movements of children's bodies and their motor gesture tactile during use of spaces.

Regarding, the second and third phases, they were held to Group B (16 children). Children were asked to participate in perceptual cognitive skill activities, including drawings and photography to evaluate their perceptual cognitive development. The drawings and photos are a starting point for a conversation in the third phase of informal interviews, which discussed details of drawings to obtain basic information about the participants and their secret play settings that occasionally required child- led walks.

2.2. Site description

Regarding the site description, the study is conducted in two different urban recreational sites. These are HSC, Cairo, Egypt, which resembles a gated private intergenerational recreational urban space and Châtelet-Les Halles, Paris, France, which resembles a public intergenerational recreational urban space. They are similar in terms of encompassed spatial typologies (assembly zones, playgrounds, pathway, and gardens), but the spatial

typologies are different in terms of the suggested spatial potentialities. Moreover, the two case studies are clearly different in terms of the spatial porosity and the “Ambient envelop”, (Noha Said, 2010).

Regarding HSC recreational urban space, in Cairo, its area is approximately 70,000 m², from which 30,000 m² are urban social spaces including 2000 m², as a playground for children. The club encompasses long defined circulation pathway network bounded by trees on both sides. The club comprises a variety of social and sport facilities.

HSC is one of the Social Sporting Clubs (SSCs) in Egypt that are exclusive social and sporting urban spaces that give the chance to its members only to meet. These spaces were first introduced to Egypt with the British occupation. HSC is considered as a private gated recreational urban space (Noha Said, 2010). Moreover, according to HSC conception and regulations, it is convenient to all ages as well as handicapped. HSC is subdivided into a number of segmented functional spaces considered as different spatial typologies. They are classified into, allays and circulation pathways or boulevards, open gardens, a playground, and open assembly zones (Figures 1 and 2).

As for Châtelet–Les Halles, which is considered as one of the daily intergenerational open public space, known as “The Nelson-Mandela Garden”, formerly “Jardin des Halles”, in the center of the city of the 1st arrondissement of Paris, France. The garden is built on a slab covering the underground facilities of the Forum des Halles commercial center and Châtelet-Les Halles station, of approximate 30,000m², which implies access and ventilation. A redesign of the garden was carried out in 2010 and ended in 2018 by SEURA so as Philippe Raguin. The entire area is elevated with few steps and bounded by Saint Eustache Church. The project is of great spatial organizational complexity, it is subdivided into a number of segmented functional spaces considered as different spatial typologies. These spatial typologies are classified into, allays and circulation pathways or boulevards, open gardens, playgrounds, and open assembly zones (Figures 3 and 4).



Figure 1. General view of Heliopolis club (HSC), Cairo, Egypt

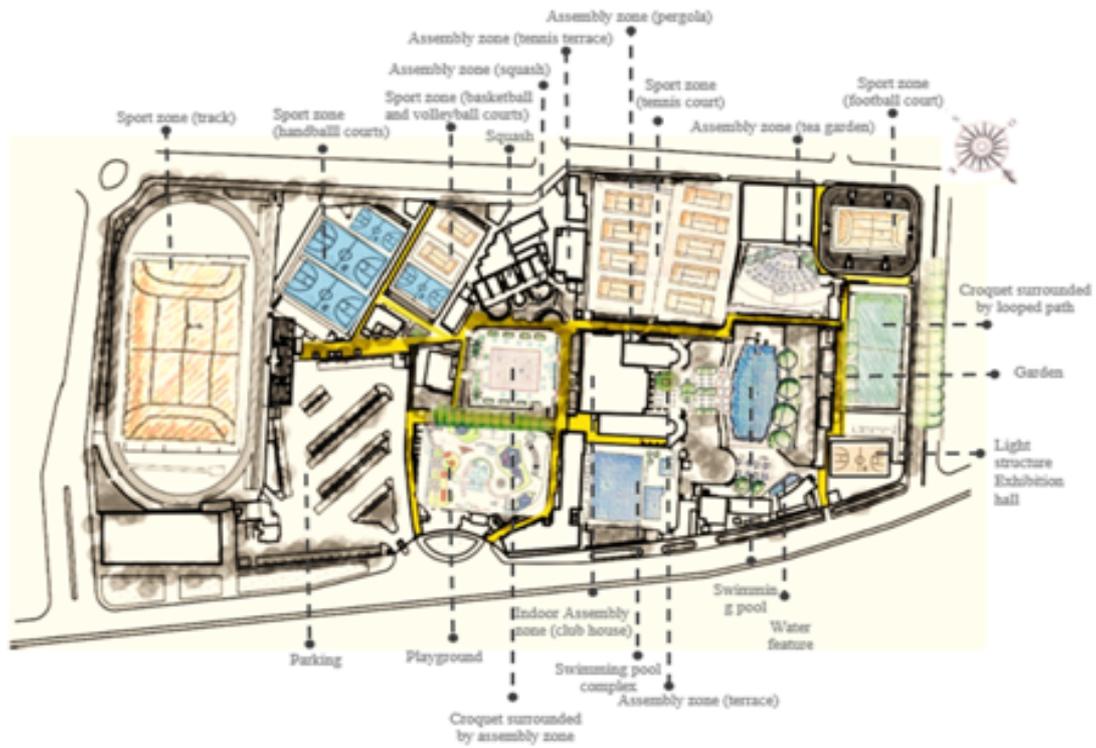


Figure 2. Layout of different typologies in Heliopolis club (HSC), Cairo, Egypt



Figure 3. General view of Châtelet-Les Halles, Paris suburbs, France



Figure 4. Layout of different typologies in Châtelet-Les Halles , Paris suburbs, France

2.3. Data analysis and results

Different tactics were implemented to analyze the collected data from the above mentioned two recreational sites. These tactics involved statistical quantitative techniques and qualitative techniques in order to assess the differences between the two urban sites, in terms of the outcome variables of children's presence and of the play behavior types. Moreover, these tactics elaborate children's everyday sensory experiences, environmental perception, preferred places' ambience, place preferences, the potential links between aspects of spatial configuration so as play opportunities, degree of freedom, gestures' tactile, and lived spaces.

These analysis tactics were held within the shadow of "Trialectic Space Theory" (Lefebvre 1992) and "Affordances theories", (Gibson 1979) in order to fill in the gap between the view of designers in conceiving designed spaces and the children perception to their lived environments, while considering their culture, social and previous background (Gibson 1979, Bourdieu 1986, Heidegger 1996).

Affordance points to the environment and to the observer (Gibson 1979). Gibson affordances introduced the idea of the actor-environment mutuality, where the actor and environment are inseparable pair. Accordingly, Lefebvre (1992) introduced theoretical studies based on critiques of structuralism, phenomenology, affordances and existentialism, which lead to the construction of three modes of space, described as "trialectic spatiality" (Lefebvre 1992), (1) conceived, (2) perceived, and (3) lived. These space levels help in apprehending the space significance. The spatial triad introduced by Lefebvre assists in understanding the production of social spaces; assists in analyzing dynamic use of social spaces through spatial practices and lived experience of users.

4. RESULTS

The following sections present the results of the analysis of the data collected in the two recreational urban spaces, respectively, through three modes of space, (1) conceived, (2) perceived, and (3) lived.

4.1. HSC recreational site, Cairo, Egypt

4.1. a. Conceived space

This first spatial level investigates the impact of the spatial porosity, elaborated as the degree of openness and closure of the outer spatial boundaries of territory space definition and the inner spatial permeability in between spatial typologies, on the children presence in urban spaces. HSC is distinguished by high spatial definition of the territory through high degree of closure of its outer boundaries through the surrounding secured gates and walls. Accordingly, the collected data from the Behavioral qualitative observations sessions were analyzed using a collective behavioral mapping to investigate children presence in the different space typologies that are highly confined with fences and tangible boundaries, promoting the creation of a “Mosaic ambiance” through functional islands, Noha Said (2010) with low permeability in between (Figure 5). Each red dot represents the observation of an individual child in a specific spatial typology. Other colored dots indicate the same child engaged while playing in different spatial typologies. Through observations, the presence of children in HSC typologies is highly noticed, as the parents leave their children play freely and move within the different typologies bounded by the club walls, relying on the security and the convergent surrounding community. Observations revealed at HSC that children tended to engage in a longer spans of time in the same spatial typologies with higher level of activity concentration. Children seemed to be trapped in every spatial typology isolated from the surrounding with low degree of freedom and integration. Thus, the number of other colored dots is limited.



Figure 5. Children presence percentage in different typologies

4.1. b. Perceived space

This second spatial level examines the included spatial typologies (garden, pathways, assembly zone, and playgrounds) that promote different play patterns associated with different space preferences and perception. Accordingly, the collected data from different included spatial typologies was analyzed as follows:

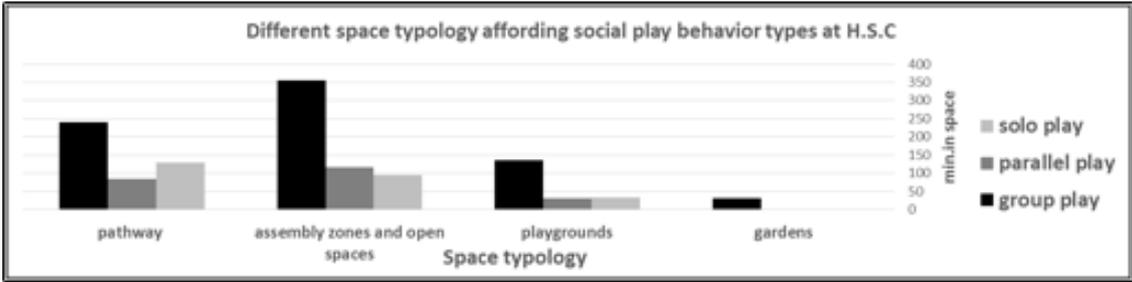
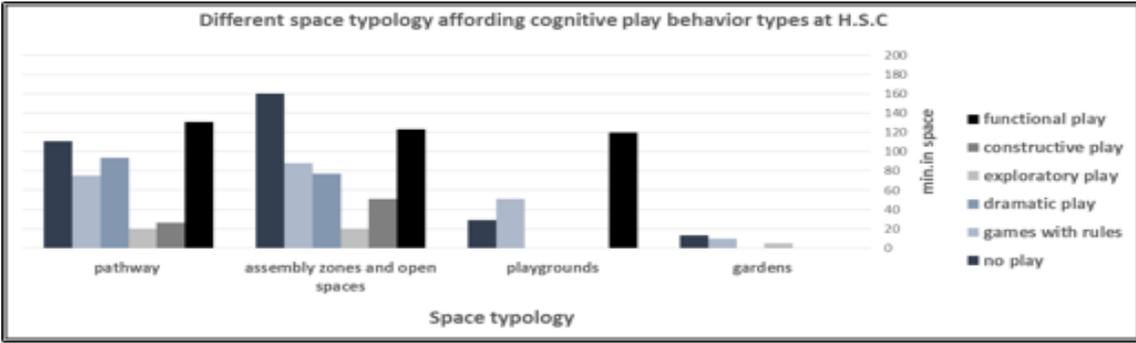
Data from child-centered structured observations of play behavior was analyzed to assess the differences between space typologies in the occurrence of cognitive and social play types (Figures 6). In pathways, children

were engaged more in “functional play behavior”, defined as physical and motor activities, was a dominant behavior. Children were observed in physical activities as running, and playing with wheeled toys. As for playgrounds, children were also engaged in functional play, as a dominant behavior and engaged in “games-with-rules” like hide and seek and competitive sports. While in assembly zones, children were engaged in “no play” more than functional play, where it took place in a sedentary in-active digital solo social play form, like video watching and chatting. The garden promoted “No play” and “games-with-rules” to be the dominant behaviors. “Group social play” was observed to be dominant in all the included space typologies. Assembly zones so as open spaces promoted more “group play” so as “parallel play”. This might be interrelated to space encapsulation so as visual continuity that gather children to challenge their abilities. While pathways promoted group play followed by solo play that is observed to be more than other typologies.

These spatial typologies with their different configurations promoted children’s different spatial preferences that appear in their presence analysis in different spatial typologies (Figure 7). Thus, assembly zones and open spaces followed by pathways, highly encouraged children presence to encompass 2/3 of the sample. In contrast, children showed less preference to the playground, where less presence percentage was observed, 15% of the sample, which reflects the rejection sense of being confined in a certain island specified for children. The garden, occupied the least presence indicating poor diversity and encompassed 7% of sample. Observations highlighted that children show preference to some places more than others according to the accommodation of their activities.

This spatial preferences affect children’s perception and mental maps that enhance different learned and experienced notions that appeared in children’s drawings, photographs, and informal interviews. The children’s drawings were analyzed to assess their perceptual cognitive skills, where different criteria was independently rated on 5-points of Likert scale that was rated as an average of 3 independent professionals (Piaget, 1956). Regarding the group aged between 4 and 7, two criteria were considered as follows: accuracy of represented elements and amount of represented details in elements. It was noticed that most of the children have high perception of large amount of details; they were aware of specified spatial typology; their drawing explained their preference to play equipment so as landscape elements and reflected their perception to the diversity of material, color so as texture. Moreover, children have high perception to the Mosaic of spatial typologies with their multi-experience settings for play behavior, and they used letters and symbols to reflect the drawing meaning. Most of the drawings expressed the absence of children and their friends, which questions the social relations. In addition, they were aware of the physical characteristics of vegetation, water feature and urban seats (Figure 8). For age group above 7 years, six criteria were considered as follows: accuracy of represented elements, amount of details in represented elements, accuracy of overall playground scene, amount of details in overall playground scene, visual realism in terms of accuracy of spatial relationships, and visual realism in terms of perspective so as representation of depth. It was noticed that drawings explained the perception of typologies and their space preferences with their multi-experience settings so as their elements and physical features represented in details to offer different play behaviors. Children were aware of the spatial territory and represented themselves to be isolated from outer context. The drawings focused on existing spatial configurations of typologies and excluding characters that they daily interact with (Figure 9). For further details, Student t-test denoted that there was no significant difference between genders cognitive skills; criteria, where p-value was greater than 0.01.

After drawings and informal interviews, a clustering task was conducted to determine the recurring ideas, physical features and qualities that attracted children. This produced a matrix for each child to document his/her work, while showing the place preference. This denoted basic information of each participant, description of the drawing, and feelings during interviews with occasional child led-walks to reflect their preferences to settings. The participants highlighted their mental perceived properties of space and frequent attractive physical properties.



Figures 6. Different afforded cognitive and social play types by different spatial typologies in HSC

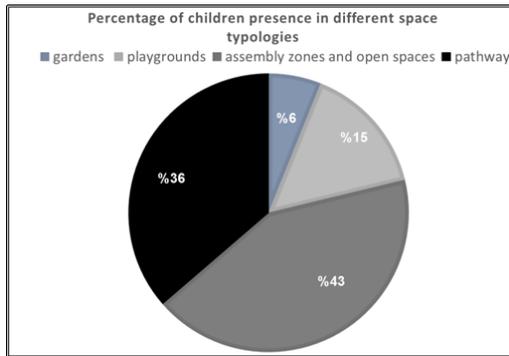


Figure 7. Different children preferences of the different spatial typologies in HSC



Figure 8. Drawing samples of 4 to 7 age group



Figure 9. Drawing samples of above 7 age

4.1. c. Lived space

This third spatial level explores potential associations between the included various landscape aspects, independently from the spatial typology itself, and children's play opportunities, gesture's tactiles, lived spaces, ambiance, and spatial sensible experience. Accordingly, data from the behavioral qualitative observations sessions, informal interviews and walks were analyzed, where five potentialities of spatial configurations were suggested for analysis: (1) Entity of activity setting, (2) Flow continuity and fluidity, (3) Diversity of ground materials, (4) Topographic Variability, and (5) Presence of different urban spatial features. They are elaborated, as follows:

1. Entity of activity settings: HSC is subdivided into segmented functional spatial typologies with levels to creating a "Mosaic ambiance", which enhances sensory breaks and isolation. Entity of activity settings in HSC typologies is classified into three types. First, segregated confined islands with multiple-spatial experience settings with good functional definition separated settings with multiple internal activity routes, as the playground. Where children activities were observed to associate with organized frequent shifts from one activity setting to another. So as multiple-spatial experience settings with functional definition and no internal separating activity routes, as assembly zones, where more dynamic undetermined actions with frequent change was observed. In addition to single-spatial experience setting with good functional definition with no internal separating activity routes, as the garden that provide a flexible variety of play experiences and children can shape them according to their will.

2. Flow and fluidity: HSC has different forms of flow continuity and fluidity. Multiple internal activity routes separating multiple-spatial experience settings with good functional definition that promoted organized flow of play, higher level of physical activities and gross so as motor play. In addition to the absences of internal separating activity routes within the visual divided multiple-spatial settings that are characterized by impulsive and obstructed play activities with others and with flow and fluidity. Also, no internal separating activity routes within the single undivided setting, which, are characterized by random flow and fluidity.

3. Ground material diversity: some typologies in HSC feature high variety of ground materials as the playground (i.e. rubber flooring for play equipment areas and concrete cover for pathway). In contrast to other typologies as the garden that has poor ground material diversity with mono- texture and material. In general, diversity of ground materials was observed to promote imagination, creativity, and more dramatic play.

4. Topographic Variability: HSC's typologies have topographic variability achieved by different ground levels. It was observed to develop hand-leg-eye coordination that conquer their fear. Children mentioned that they prefer spaces that provide feelings of security, and develop self-identity.

5. The presence of different urban spatial features: HSC encompasses urban spatial features such as sculptures, landmarks, and vegetation that provide shaded areas. Vegetation offers climate moderation that stimulate challenging play. All the above elements, were observed to encourage

4.2. Châtelet-les halles recreational site, Paris, France

4.2. a. Conceived space

Unlike HSC, the characteristics of Châtelet-Les Halles site achieve high spatial definition of the territory through high degree of openness of the urban public space with the surrounding urban context. A noticeable parental supervision due to the consideration of the presence of strangers. Thus limiting the territorial range for their children that are allowed to play in the closed playgrounds, or under parental supervision in specific spatial typologies that achieve visual continuity. Since not all spatial typologies achieve complete visual continuity, as they are semi-closed or confined by visual and tangible boundaries. Therefore, these spatial typologies feature medium inner spatial permeability in-between through linear flow, linkage within adjacent zones, and inviting

access. Observations revealed that children tended to engage in shorter spans of time in the different spatial typologies with different activities. Accordingly, the collected data from the Behavioral qualitative observations sessions in Châtelet-Les Halles were analyzed by mapping the children's presence in different spatial typologies, where children have higher degree of freedom and smoother integration within the medium permeable typologies, than in HSC (Figure 10).



Figure 10. Percentage of children presence in different typologies

4.2. b. Perceived space

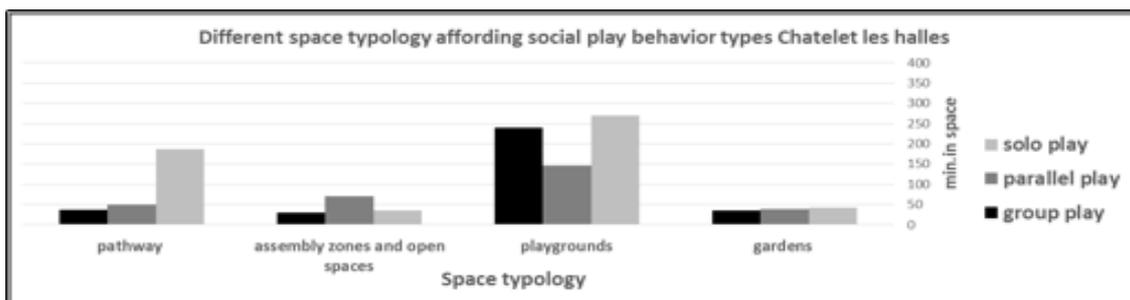
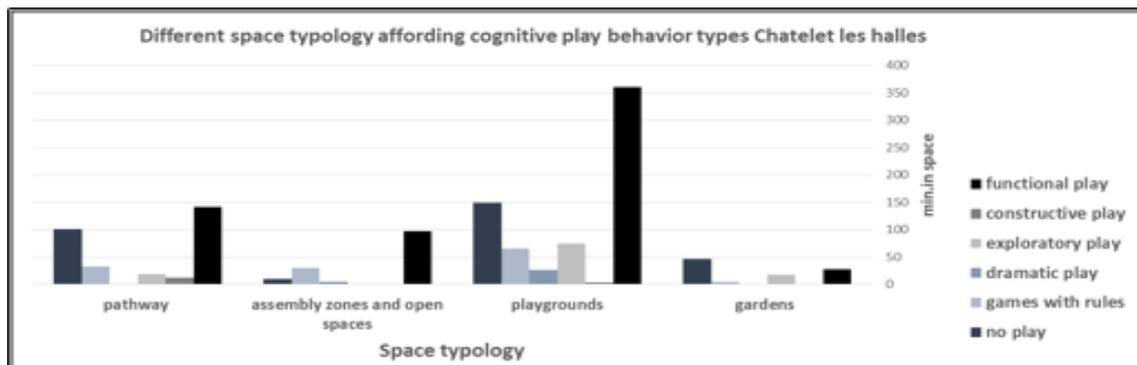
Châtelet-Les Halles encompassed similar typologies to HSC that promoted different patterns of play behavior. Child-centered structured observations are analyzed to indicate that functional play behavior was dominate in all space typologies. Pathways and playgrounds promoted more “functional play” followed by “No play behavior”. In contrast to Gardens that promoted more “No play behavior” followed by “functional play”. As for the assembly zones, they promoted more “games-with-rules”. For social play, “Solo play” was dominate play type for all spatial typologies except for assembly zones “parallel play” was the dominate type (Figures 11).

These spatial typologies with their different configurations promoted children's different spatial preferences that appear in their presence analysis (Figure 12). Differently from HSC, in Châtelet-Les Halles, playgrounds followed by pathways, appeared to highly encourage children presence, where playgrounds encompass almost 1/2 of the sample, while alleys and pathways encompass 1/3 of the sample. This high presence percentage in the playgrounds might return to the high sense of security through the confinement of these spaces surrounded by fences to control space accessibility, thus, children are left to play freely without stiff parental supervision. On the other hand, pathways are lined with elevated concrete bases. While the least children presence was observed to be in the garden. This highlights how children perceive places that are convenient or not for their preferred activities.

The children's drawings were analyzed, once more, to assess their perceptual cognitive skills with the same criteria of HSC; where in Châtelet-Les Halles most of the children have high perception and accuracy of the represented elements. Furthermore, they were aware of the surrounding buildings. They were aware of the multi-experience settings and the presence of specific urban spatial feature (water feature and vegetation). Their drawings explain their perception of different materials and colors. For the "4 to 7" age group, it was noticed that children have high perception of large amount of details and aware of specified spatial typology like playgrounds. They explained their preference and were aware of parental supervision (Figure 13). As for "older than 7" age group, drawings indicated their high perception, accuracy awareness of spatial territory and the surrounding buildings. Their drawings indicated their preferred typologies and their awareness of the

physical characteristics like water features (Figure 14). For both age groups (4 to 7 and above), the drawings explained the perception of outer spatial territory of recreational urban space, as a whole and the segmented preferred typology. Most of drawings, indicated natural features like sun and birds, as they perceive nature as an opportunity for play. Alike HSC, Student t-test results were analyzed to assess the differences between girls and boys relative to perceptual skills. For perceptual skills, there was no significant difference between genders for the cognitive criteria, as p-value was greater than 0.01.

Concerning the matrix created for each child in Châtelet-Les Halles, showing place preference and description of the drawings. Responses and feelings were documented during the occasional child led-walks to show preference, and extract keywords to clarify their mental perceived properties of space.



Figures 11. Different afforded cognitive and social play types by different spatial typologies in Châtelet-Les

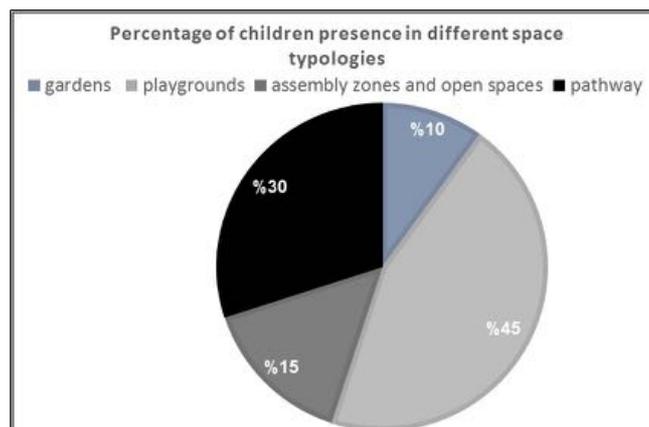


Figure 12. Different children preferences of the different spatial typologies in Châtelet-Les Halle



Figure 13. Drawing samples of 4 to 7 age group



Figure 14. Drawing samples of above 7 age

4.2. c. LIVED SPACE

Data from the behavioral qualitative observations sessions, informal interviews, and walks were analyzed to explore potential associations between various landscape design aspects and children play opportunities to understand the impact of the potential role of the five suggested spatial potentialities in Châtelet-Les-Halles, as follows:

1. Entity of activity settings: All spatial typologies in Châtelet-Les Halles are visually confined or highly confined tangibly creating a minor segregated recreational islands that are characterized by multi-spatial experience that are perceived as private spaces that imitate as miniature of the complexity of real world. Such spaces are associated with longer spans of activity time. Unlike the assembly zones that are characterized by a single whole activity setting and highly permeable that do not afford protected play activities.

2. Flow continuity and fluidity: Every typology is characterized by flow continuity and fluidity with clear activity routes with distinct material (hard-soft). Circulation network has defined materials that offer integration with adjacent settings. Clear activity loops/routes encouraged smooth flow of play. Unlike in assembly zones, random flow and fluidity without activity route networks that is associated with repetitive behavior, which escalated fights.

3. Ground material diversity: Variety of ground materials were evident in different typologies (rubber, concrete tiles and grass), which promoted various forms of play. Hard ground is associated with running and wheeled toy play, while soft ground surfaces are appropriate for relaxation. Even diversity of color is also observed to promote more constructive and dramatic play. Unlike, the assembly zones and open spaces features poor ground material diversity, through the presence of mono-texture, color and material.

4. Topographic Variability: The recreational urban space is designed as a flat large area with noticeable variability of levels as positive or negative topography such as depressed levels, ramps, bridges, seating steps, steps, elevated concrete bases, bumps, and climbing stones. Diversity in levels seems to create challenging play experiences that provide high degree of stimulating and risk taking to compete abilities.

5. The presence of different urban spatial features: Châtelet-Les Halles encompasses interactive features, elements stimulating senses and different types of vegetation. Trees were observed to promote climbing, while

water feature promote exploratory play. Iconic urban features increase child curiosity. In general, urban features might enhance imagination; creativity and innovation.

5. DISCUSSION

Based on the accumulated data from the two sites, the outcome of the spatial triad presents different afforded children play behavior in relation to the conceived, perceived and lived characteristics of the two recreational urban spaces, from which apparent was the following:

The layout conception, in terms of spatial porosity, is noticed to impact children general play behavior differently in both sites, (Figure 15). Where Châtelet-Les Halles is characterized by its high spatial definition of the territory through high degree of openness and HSC is distinguished by its high spatial definition of the territory through high degree of closure, while both have low to medium spatial permeability in-between the included spatial typologies. Therefore, analysis of Student's t-tests assessed the significant differences between both sites in the occurrence of cognitive and social play types, (Table 1). Student's t-tests showed significant differences in the occurrence of "dramatic play", defined as acting familiar activities such as playing with dolls or imitating the socio-cultural community, "games-with-rules" and "group play" that were greater at HSC. While the occurrence of "functional play" and "solo play" were greater at Châtelet-Les-Halles.

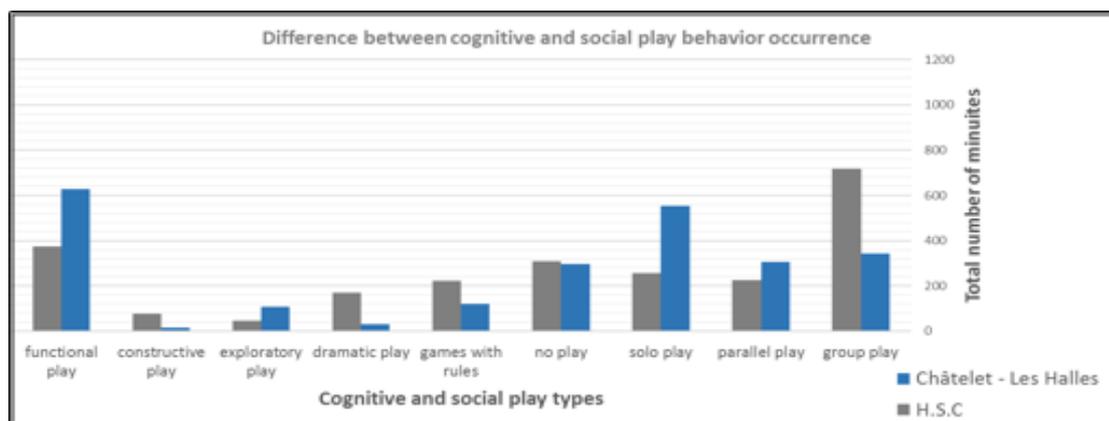


Figure 15. Difference between amount of observed "cognitive play" and "social play" in the two sites

Table (3): Significance of "cognitive play" and "social play" between the two sites

Play type		Student t-test						significance	In favor
		Châtelet - Les Halles N=30			H.S.C N=30				
		No of children engaged	Mean minutes per children	Standard deviation	No of children engaged	Mean minutes per children	Standard deviation		
cognitive play	1 Functional play	30	20,93	8,91	21	17,81	10,85	Significant P< 0,001	France
	2 Constructive play	3	5,00	1,61	10	7,70	3,98	NOT Significant P=0,011	Egypt
	3 Exploratory play	11	9,91	5,50	7	6,43	2,90	NOT Significant P=0,065	France
	4 Dramatic play	5	6,20	2,57	12	14,25	8,64	Significant P< 0,001	Egypt
	5 Games with rules	12	10,08	5,63	25	8,96	4,09	Significant P< 0,001	Egypt
	6 No play	25	11,84	7,65	27	11,44	7,02	NOT SIGNIFICAT P=0,82	France
Social play	A Solo play	29	19,07	10,33	29	8,6	4,80	Significant P< 0,001	France
	B Parallel play	20	15,25	9,60	28	8,07	3,60	NOT SIGNIFICAT P=0,16	France
	C Group play	19	18,00	11,56	30	23,90	5,32	Significant P< 0,001	Egypt

Concerning the analysis of the spatial typologies, apparent was that children comprehended space as segmented places and do not perceive them as a whole, but classified them to adapt their different play experiences (Titman, 1994). Thus, every spatial typology might encourage specific play pattern with higher levels of certain activities that affects differently children preferences and perceptions. Hence, children express their spatial typology preferences and their perception according to its different attributes. This was clear in their drawings skills assessment criteria that tended to be of high complexity. In general, drawings indicated their awareness of isolated spatial typologies with different configurations. In addition, Student's t-tests indicated that the differences between the two sites in terms of drawing skills were not significant with the different age tranches. However, for the two evaluation criteria used to the two age tranches, the mean ratings of HSC drawings were slightly higher than those of Châtelet-Les Halles drawings. This is linked to the advancement of constructive play and dramatic play as cognitive play types in HSC, ELNESR (2018) (Figure 16). Moreover, the analyzed documentation of the cognitive skills and informal interviews in both sites indicated that children perceived properties of space, which made them implement different learned and experienced notions. In HSC, children used, more frequently, notions that point to color, levels, levels, physical properties recognition, new perspective, sense of secure and freedom, while in Châtelet-Les Halles, children notions were describing space boundaries, new perspective, challenge, manipulation, sense of cooperation, awareness of parental supervision.

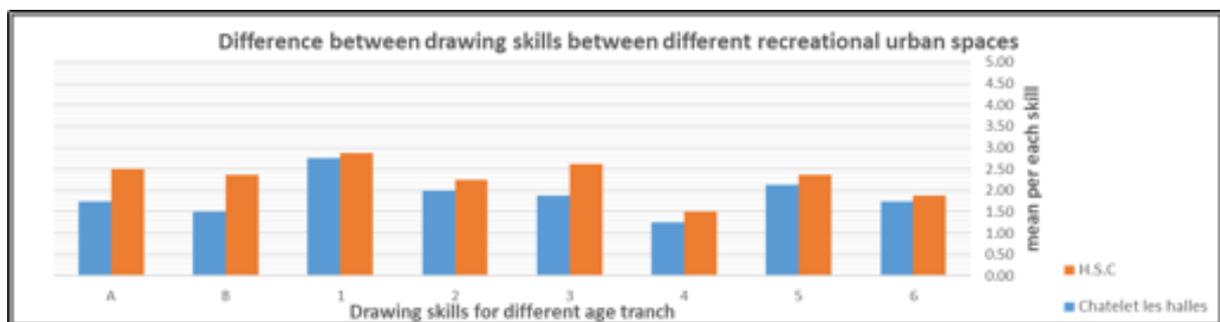


Figure 16. Difference in evaluations of drawings between the two sites

As for the five proposed spatial potentialities tended to be related to children's play space experiences and the created ambiance helping in fulfilling children's priorities and in producing attractive engaging settings; ensuring previous literature.

1. Entity of activity setting: Both urban spaces have spatial potentialities that have multiple-spatial experience settings as well as single activity settings, with good functional definition. In both recreational urban spaces children showed preferences to the single spatial zones that are considered by them as huge open space, there you can shout, run, jump and kick the ball strongly. According to Christensen (2003) who concluded that children interact with spaces of different size in a variety of situations.
2. Flow continuity and fluidity: Both recreational urban space some typologies that have no internal separating activity routes within the single undivided setting. While others are characterized by well-defined separating multiple internal activity routes connecting the different entry points, which achieved flow continuity. It was observed during the field work that activity routes are considered as multi-purpose spaces interpreted in many ways is more challenging to a child's imagination and encourages social interaction. These activity routes or loops help to separate areas in the play space that serve different functions. Moreover, Valentine (2004) stated that children's preferred play spaces, which allow for flexible ways of playing flow and all spaces that lend themselves to be "appropriated" by children.
3. Diversity of ground materials: Châtelet - Les Halles and H.S.C recreational urban spaces' spatial typologies are characterized by a high diversity of ground materials as well as textures and colors used, except for the garden at H.S.C and the assembly zones at Châtelet - Les Halles are characterized by poor ground material

diversity. And indeed, more play diversity was observed at spatial typologies with high diversity and variability in ground material. The findings of this study are consistent with Cohen et al. (1999), Cele (2006) and Simkins and Thwaites (2008) who concluded that “diversity and variety” in space offer the chance to create new affordances and gain diverse play experiences and this stimulates the child sense of “exploration” and “curiosity”. Children play is stimulated by variation with in space characteristics. Children need designs without defined tangible meaning, which stir up the “imagination” of children & tickle their “curiosity” (Korthals, 2013).

4. Topographic variability: As previously mentioned, unlike HSC, Châtelet - Les Halles is designed as a flat large recreational urban space with spatial typologies that are designed as flat spaces defined with levels (steps/slopes/parapets) or encompass noticeable topographic elements. Therefore, functional play behavior, jumping, climbing, hiding, sliding, diving, and rolling were much less frequently observed in the spatial typologies of Châtelet - Les Halles recreational urban space, except for the playgrounds which are designed noticeable topography such as depressed and elevated levels, ramps, bridges and seating steps, and elevated concrete bases for sitting that are associated with. Children in general are drawn to adventurous activities that include height and speed, like climbing trees, steps, or sliding down deep slopes (Tovey, 2010).

5. Urban spatial features: in H.S.C and Châtelet - Les Halles recreational urban spaces are characterized by stanerdalized design to achieve safety, though H.S.C had more flexible urban spatial features that offer a greater opportunity of freedom in use. Both recreational urban spaces are characterized by the presence of different urban spatial features is noticed in all different spatial typologies, through the presence of interactive features, elements stimulating senses such as sculptures and landmarks; different types of vegetation e.g. including shrubs and flowery plants, and large shading trees, and plants, providing relatively large shaded areas; interactive features as water jets/falls, urban seats and pergola; and natural loose materials e.g. mud. Re-purposing elements in space typologies into places for play is an important aspect that stimulates children’s play. These skills support social skills, and co-operation of objects (Capresi & Pampe, 2013). These elements are perceived by them as multi-functional elements that they use differently in every new situation. Such elements are the focus of children’s play in the space as they promote dynamic action, stimulate children’s imagination, and enhance their curiosity and sense of exploration. They provide opportunities for artistic expression, and a playful sense.

6. CONCLUSIONS

This study explored children places in daily urban spaces. A children place is any place that attracts a child for play that is stimulated by its qualities. From the analysis, different spatial potentialities in the physical environments provide spatial qualities. The ambient envelop resulted from merging the three levels of space (i.e. conceived, perceived, and lived) fulfill children during play based on main behavioral themes, which are exploration, manipulation, so as challenge and territory identification. These themes might help in enhancing notions linked to children aspects of development. The cross-reading in different fields as sociology, physiology, and geography offered a comprehensive analysis of terminologies. Accordingly, the following conclusions were deduced. Spatial porosity might influence child's presence and play behavior types. In addition, different spatial typologies with their different configuration might promote different play patterns that are associated to different preferences and perceptions. The study, also revealed that diversity and variation in physical potentialities attract children to play by fulfilling their needs and promoting imagination as well as creativity. Thus, for example, the entity of activity settings in the different forms seems to encourage children to interact with them physically and stimulate their imagination. Organized folw and fluidity highlights space boundaries that might provide children with the sense of security. Moreover, diversity of ground materials affords endless play opportunities. Besides, the results confirmed that topographic diversity stimulates children's imagination and promotes dynamic action. The presence of different spatial urban features help children experience their

five sensations (hearing, touching, smelling, tasting, and seeing). The above spatial key qualities and ideas give an insight to what sort of places stimulates children and finds most engaging.

REFERENCES

Bernard, L., 2004. Le XVIIème arrondissement de Paris: des cicatrices profondes, une mixité introuvable. Unpublished thesis. University René Descartes-Paris

Breviglieri M. 2014. La vie publique de l'enfant. *Revue de sciences sociales sur la démocratie et la citoyenneté* 2 : 97-123

Capresi V., Pampe B. 2013, "Learn-Move-Play-Ground: How to improve Playgrounds through Participation", Berlin: Jovis Verlag GmbH

Cele S. 2006. *Communicating Place: Methods for Understanding Children's Experience of Place*. Stockholm, Almqvist and Wiksell International University of Stockholm, PhD thesis.

Chawla L. 1992. *Childhood Place Attachments*. Boston, Springer.

Christensen, P., 2003. 'Place, Space and Knowledge', in P. Christensen and M. O'Brien (eds), *Children in the City, Home, Neighbourhood and Community*, New York: Routledge.

Cohen U, Hill A, Lane C, McGinty T, Moore, G. 1999. *Recommendations for Child Play Areas*. Milwaukee, Wisconsin University.

Einarsdóttir J. 2007. Research with Children: Methodological and Ethical Challenges. *European Early Childhood Education Research Journal* 15(2):197–211.

Elkind D. 2008. The Power of play: Learning what comes naturally. *American Journal of Play* 1(1): 1–6.

Elnesr M, Moustafa Y, TOLBA O. 2018. Outdoor playground landscape design and children's cognitive development. Paper presented at the 18th Archdesign - International Architectural Design Conference Proceedings, Istanbul, 3-4 April 2018.

Fjørtoft I. 2004. Landscape as Playscape: The Effects of Natural Environments on Children's Play and Motor Development. *Children, Youth and Environments* 14(2): 21-44.

Gamal Said N. 2010. Cairo behind the gates: studying the sensory configuration of Al-Rehab SPACE. *Ambiances - International Journal of SENSORY ENVIRONMENT, ARCHITECTURE and Urban Research*, <https://doi.org/10.4000/ambiances.252> (Retrieved February 6, 2013).

Gibson J. 1979. *The Ecological Approach to Visual Perception*. Boston, Houghton Mifflin.

Heidegger M. 1996. *Being and Time: A Translation of Sein und Zeit*. New York, SUNY.

Korthals, R., 2013. 'Design for Play? Creating Landscapes to Play', in V. Capresi and B. Pampe (eds), *Learn Move Play Ground: How to Improve Playgrounds Through Participation*, Jovis.

Lacey, L. 2007. *Play day*. Play England.

Lefebvre H. 1992. *The Production of Space*. Oxford, Blackwell.

Lester S, Russell W. 2008. *Play for a charge: play, policy and practice: a review of contemporary perspectives*. London, Play England.

Miller, E., & Kuhaneck, H., 2008, "Children's perceptions of play experiences and the development of play preferences: A qualitative study", *American Journal of Occupational Therapy*, 62, 407–415.

Piaget J. 1956. *The child's conception of space*. New York, Macmillan.

Punch, S., 2000. 'Children's Strategies for Creating Play Spaces: Negotiating Independence in Rural Bolivia', in S. Holloway and G. Valentine (eds), *Children's geographies: Playing, living, learning*. Routledge.

Simkins, I. & Thwaites, K., 2008. 'Revealing the Hidden Spatial Dimensions of Place Experience in Primary School-age Children'. *Landscape Research*, 33(5), pp.531–546.

Spilsbury, J. C. 2005. Children's Perceptions of the Social Support of Neighborhood Institutions and Establishments. *Human Organization*, 64(2), 126–134.

Titman W. 1994. *Special Places; Special People: The Hidden Curriculum of School Grounds*. WWF, UK.

Tovey, H., 2007. *Playing Outdoors: Spaces and Places, Risk and Challenge*, McGraw-Hill Education (UK).

Valentine G. 2004. *Public Space and the Culture of Childhood*. London, Ashgate.

Ward, C., 1978, *The Child in the City*, London: Architectural Press.

INTRODUCING THE STUDENTS' PARTICIPATION, UPGRADING THE CURRICULUM: THE CASE OF THE COURSE SUSTAINABLE CITY, UNIVERSITY OF BELGRADE - FACULTY OF ARCHITECTURE

VLADIMIR MIHAJLOV, ALEKSANDRA STUPAR, IVAN SIMIĆ

Vladimir Mihajlov, Associate professor, University of Belgrade - Faculty of Architecture, Belgrade, Serbia

Aleksandra Stupar, Full professor, University of Belgrade - Faculty of Architecture, Belgrade, Serbia

Ivan Simić, Assistant professor, University of Belgrade - Faculty of Architecture, Belgrade, Serbia

ABSTRACT

This paper describes the process applied in the course named Sustainable City (University of Belgrade - Faculty of Architecture, 1st year of master studies) which directly influences its design and further upgrading. By introducing the students' participation, the curriculum supports their research work which is divided into two phases: reflexive and creative.

The first, reflexive phase is focused on the problem analysis targeting the sustainable urban transformation processes. Through the examples selected by students a number of specific urban problems related to different aspects of sustainability are identified and described, as a practical contribution. The second, creative phase introduces the students' proposals and recommendations for improving the urban environment, tested through a development of a small pilot project (representing the final outcome - exam). Through these two phases students verify their ability for preparing proposals for various research projects and grants, aiming at the desirable transformations of cities via affordable solutions.

The design of the course curriculum also enables students to understand the genesis and an impact of sustainable processes on urban development, creating the basis for the knowledge application in both urban planning and design. Simultaneously, this participative approach influences the elaboration of an iterative process in which students provide inputs, i.e. the desirable research topics for curriculum improvement, later included into an updated and upgraded version of the course, implemented in the following school year. The results suggest that through an inclusive learning process, a culture of proactively envisioning a sustainable alternative future is emerging. Most importantly, student participants show their commitment as the agents of potential change to create alternative environmental values and sustainable behavior.

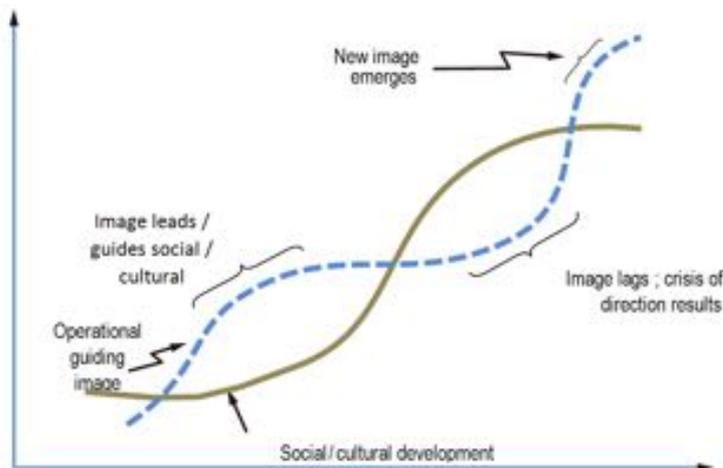
INTRODUCTION

Recently, Serbia and other SE European countries have experienced the unpleasant periods of socio-economical underdevelopment. In other words, the creation of wealth did not enable a shift from the basic economic needs to other intangible priorities. The environment of urban regions in Serbia already exceeds its capacity to absorb waste and this trend needs to be reversed. Hence, the main question is whether it would be possible to change the current perception of dominant values, especially through educational process. The World Values Survey, developed by Inglehart and Baker (2000), shows that changes in values are not random and are caused by the continuous socialization of urban neighborhoods, in the context of an economic and environmental security (Carmona, 2018). During the recent decades, so-called post-materialism has emphasized individual autonomy, self-expression, and environmental stability at the expense of city development and economic goals. Consequently, the economic activities gradually rise the assessment of survival and environmental security (Dalton & Welzel, 2014; Inglehart & Baker, 2000-2014; Welzel & Inglehart, 2010).

Tibbs (2011) recognizes that the current form of urbanization is unsustainable and must change significantly, while changes of social/cultural values could contribute to achieving the overall sustainability. To predict, create or drive any change, the younger generations of students need to develop their deeper understanding, including the new issues that specifically characterize recent city transformations. Sterling (2001) briefly states that sustainable education integrates values and skills into a "reflexive and participatory process". It is also a transformative learning reaction. Novy, Smith, and Katrnak (2017) underline that post-materialist values are inversely correlated with age since younger respondents are less materialistic than older respondents. Therefore, university education now promotes environmental values and supports their hypothesis that existential security is important in supporting post-materialist goals (McNamara, 2010). In line with this, the university lecturers may assume that the participation approach to city environmental themes and values could make a positive contribution to an alternative sustainable urban future in Serbia.

Following the sustainable and environmentally conscious educational agenda conducted at the University of Belgrade - Faculty of Architecture, the course Sustainable City is meant to adapt to a sustainable future. Introducing the students' participation in the curriculum design can be explained by a concept devised by Markley and Harman in 1982. Their study was the first known formal study conducted by Thomas S. Kuhn's idea of a "paradigm shift" for a society as a whole, envisioning a change of a model of economic growth into a more sustainable one. Related to the society, it demonstrates a so-called "magnetic attraction" in the future (Polak, 1973), influencing the social decisions which could make it possible (see Figure 1).

Phase



Time

Figure 1. Hypothetic time/phase relationship between ideas and social/cultural development (Markley and Harman, 1982)

Figure 1 shows correlation between new ideas and delayed social/cultural development. Liu and Lin (2016) also state that many students want to see a policy-based future that incorporates greater environmental awareness and technological progress into urban development. In addition, their research shows that students think that city users desire better environmental quality (e.g. clean air and water), the presence of nature, and harmonious techniques for promoting comfort and the quality of life (e.g. green energy, underground transportation systems). It includes a positive attitude towards environmental factors such as trees on buildings, the awareness of global warming and alternative energy sources. Liu (2019) concludes that the integration of future thinking into science and environmental education is relatively unstudied and that further research in this direction is needed to provide the basis for university curricula and instructional development. Consequently, educational institutions, including universities, respond to leadership requirements by launching different environmental research programs. McNamara (2010) conducted a detailed research project at 86 universities in the United States that are implementing sustainability initiatives. This research ended with a list of recommended strategies and suggested methods for their implementation. Two of them are particularly relevant to this survey: building strong student involvement and engaging more people. However, scholars and students have conflicting perceptions about incorporating Education for Sustainable Development (ESD) into their programs (Jones, Trier & Richards, 2008). The results revealed general support for embedding ESD in curriculums, but also showed a significant level of uncertainty regarding the ways of implementation.

THE CURRICULUM DESIGN OF THE COURSE SUSTAINABLE CITY

The course Sustainable city (University of Belgrade - Faculty of Architecture, 1st year of master studies) represents research polygon for curriculum design and further upgrading. This curriculum tends to apply predictive learning and future design approaches to educational interventions in order to study the potential impact of changes in environmental values for the students. Through the examples selected by students, a number of specific urban problems related to different aspects of sustainability are identified and described.

Chen and Hoffman (2017) successfully applied experimental and innovative game-based curriculum design to enhance college students' ability to study the urban surrounding. Kelly (2006, 2010) provided insights in reflexive thinking and journaling as an important educational method.

Sustainable City is an elective general education course and its focus is to provide an insight into the students' desired futures of cities, as well as to discover options and opportunities via linking foresight techniques with the long-term socio-cultural potentials of urban communities. Accordingly, this path turned into a designed academic intervention to assess the results of environmentally shaped and future-oriented thinking, overcoming a gap between different environmental attitudes and ecological behaviors (Stupar, Mihajlov & Simic, 2017). By introducing the students' participation, the curriculum directly supports their research divided into two main phases: reflexive and creative. Considering this, those items are introduced during 14 weeks of the course:

1. Thematic discussions on rising issues of urban ecology, urban population, resources, energy, air, water and waste systems, transportation, vegetation, local surrounding, etc. (time horizon 2030). This education section aims to increase students' environmental consciousness.

2. Reflexive thinking. Students write down reflexive impressions, addressing numerous questions related to: a) problems which might trigger their reaction/intellectual response; b) images/discussions which challenged their viewpoints/perspectives; c) methods for improving the sustainability of cities; d) their willingness to study the local environment in situ.

3. Case study. Students are requested to focus on sustainable urban transformation processes. Through the examples selected by them, a number of specific urban problems related to different aspects of sustainability are identified and described, as a practical contribution (Figure 3).

4. Creative phase (exam) introduces the students' proposals and recommendations for improving the urban environment, tested through a development of a small pilot project - the final outcome - exam (public innovations, tactical urbanism, urban revitalization, adaptation to climate change, business-driven sustainable solutions, etc.). Through this phase students verify their ability for preparing proposals for various research grants, aiming at the desirable urban transformations via affordable solutions with a precise ecological purpose (e.g. tree planting, useful resource recycling, waste discount and reuse, urban green infrastructure preservation, defensive mangrove forest, experiencing vegetarianism, business start up programs etc.) (Figure 4).

The process of education on the course may be explained by Kolb's learning cycle (Kolb, 1984) (Figure 2).

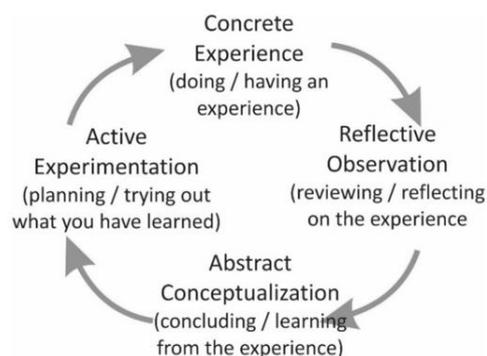


Figure 2. Kolb's learning cycle in the context of reflexive thinking (Kolb, 1984) adapted in the context of Sustainable city course



OPŠTE INFORMACIJE O VANKUVERU

Nalazi se u pokrajini Britanska Kolumbija i najveći je grad u zapadnom delu zemlje. Sam grad ima oko 650 000 stanovnika, dok šira regija tzv. Metro Vancouver ima ukupno oko 2.5 miliona stanovnika.

- osnovan 1886. godine kada je transkontinentalna pruga stigla do grada
- iste godine je uništen u velikom požaru
- umerena okeanska klima
- Drugi svjetski rat je doprineo osnovi regije (aktiviran pogon proizvodnje korveta i minolovaca)
- Greenpeace je osnovan u Vancouveru 1972. godine
- Treći u svetu po kriterijumima za najbolji život u gradu
- Deseti u svetu po čistoti
- 95% populacije nije kanadskog porekla
- Steni park je 10% veći od Central parka u Njujorku (površina parka je 100ta)




Preuzeto sa: www.vancouver.ca

6 | PRISTUP PRIRODI
KLJUČNE STRATEGIJE ZA 2020

Napraviti nove i poboljšati postojeće zelene površine.

Saditi drveće

Fokusirati se na pojedinačne delove grada

Šta treba učiniti kako bi se cilj ostvario

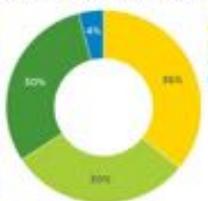
Kreativnost je ključ u stvaranju ovog cilja. Najveći problem za nove površine je toliko i treba se inovativno sprovesti u više malih parčeva kako bi se osiguralo da svaki stanovnik Vancouvera ima pristup zelenim površinama.

Plan sadnje stabala se ne treba sprovesti odmah na teritoriji grada Vancouvera već grad mora saradovati sa raznim organizacijama kako bi se sadnja sprovela na više različitih javnih i privatnih prostora.

Access to green space in Vancouver



Planting an urban forest: a breakdown of where 150,000 new trees will be planted



Category	Percentage
TREES ON OTHER PUBLIC LANDS (OTHER)	1%
STREET TREES (ALONG SIDEWALKS)	30%
TREES IN PARKS (ALONG SIDEWALKS)	30%
TREES ON OTHER PUBLIC LANDS (ALONG SIDEWALKS)	39%



Figure 3. City of Vancouver Case study analyzed by students Dunja Putic, Milan Miljkovic and Irena Pavlovic focusing on accessibility to urban green infrastructure (urban gardening expansion).

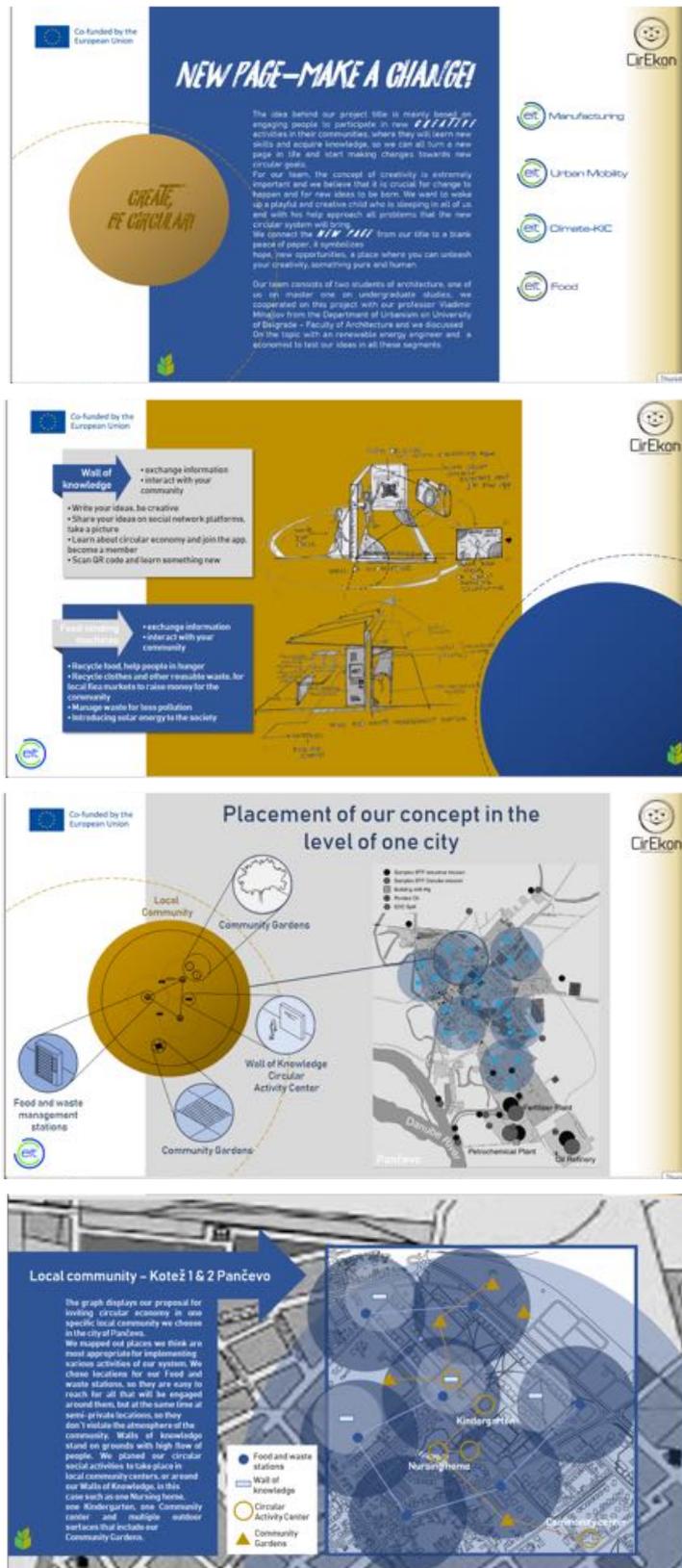


Figure 3. The proposal for improving sustainability of the urban environment in Pancevo, tested by developing a small pilot project: students Emilija Drndarski and Sara Brkic (1st award at the CirEkon and EIT Food Competition for Engaging Citizens in Circular Economy)

THE RESULTS - CHANGE OF ENVIRONMENTAL ATTITUDES, CHANGE OF CURRICULUM EXPERIENCE

The curriculum design, aimed at discovering feasible alterations of attitudes and roles via pedagogical stimulus targeting a sustainable foresight, generated four principal questions for the involved lecturers:

1. What are the preferred attitudes of students regarding the surrounding and sustainable futures?
2. Do their attitudes alternate drastically when exposed to a pedagogical stimulus related to a sustainable foresight?
3. What are the pictures and eventualities in their desired/anticipated environments?
4. Do the interventions described in pilot projects have an impact on their own environmental awareness and future actions?

The analysis of the curriculum and its results revealed that students' environmental awareness and the ability to envision the sustainable futures was increased after attending the course. Furthermore, the course layout additionally sought to probe students' attitudes in their favored/anticipated environments in a qualitative mode, exploring the increase of their awareness, as well as the responsibilities and effects they could have on the environment. This improvement of their general attitude was influenced by the introduction of reflexive thinking and workshop discussions. The participating students summarized their course experience through 4 dimensions:

1. **Curriculum experience** as a catalyst for expanding the research beyond the limitations of a classroom, enabling the closer insight into the real urban and natural features of a city;
2. **Linking motivation with reflexive thinking** in order to interconnect technological, cultural, spiritual, ecological aspects of the environment, as well as to increase environmental consciousness;
3. **Ability to act in a social responsible manner** - which implies that in the anticipated ecological future change is possible. Upgrading the curriculum by stimulating the participation of students represents a strong and positive momentum for a radical change, supporting the hypothesis which claims that the ability to act can be enhanced through future-oriented educational interventions.
4. **Visions of a future urban society** - students are constantly encouraged to question their empirical views and the nature of cities, as well as the dominant paradigms, looking at the connections between the outside and the inside world.

CONCLUSION

The application of a participatory approach in a course curriculum enables a multifold environmental experiences and activities, reflexive thinking and workshops directing students toward a higher environmental awareness and better understanding of sustainability. The course design also provides an effective insight into the genesis and impact of various sustainable processes on urban development, creating a solid basis for knowledge application in both urban planning and design. Simultaneously, the participative approach influences the elaboration of an iterative process in which students provide inputs, i.e. the desirable research topics for curriculum improvement, later included into an updated and upgraded version of the course, implemented in the following school year. Furthermore, the students' engagement regarding the sustainable futures also directs their possible actions toward healthier cities and society, as well as their connection to nature and its resources.

Due to that, the younger generations of future professionals could embrace a set of post-materialist values which would guide the articulation of their visions incorporated in the next year curriculum, based on a higher level of sustainability and environmental awareness.

The model of partnership learning certainly emphasizes the role and importance of students, their thoughts and ideas. Since the traditional models of education do not provide a sufficient level of interaction and real-world experiences, the flexible pedagogical styles are necessary to respond to the dynamism of contemporary cities and their problems, disruptive changes and future surprises. This approach also opens new possibilities for co-creation of sustainable solutions through small pilot projects, which could often excel our expectations and provide an innovative insight into the future.

REFERENCES

- Carmona, M. 2018. *Place value: place quality and its impact on health, social, economic and environmental outcomes*. Journal of Urban Design Volume 24, 2019 - Issue 1. pp 1-48 DOI: 10.1080/13574809.2018.1472523
- Chen, K.H., 2019. *Transforming Environmental Values for a Younger Generation in Taiwan: A Participatory Action Approach to Curriculum Design*. Journal of Futures Studies, June 2019, 23(4): 79–96. DOI:10.6531/JFS.201906_23(4).0008
- Chen, K. H., & Hoffman, J., 2017. *Serious play: Transforming futures thinking through game-based curriculum design*. Journal of Futures Studies, 22(2), 41-60.
- Dalton, R. J., & Welzel, C., 2014. *Political culture and value change* (pp. 1-16). In R. J. Dalton & C. Welzel (Eds.). *The civic culture transformed: From allegiant to assertive citizens*. New York: Cambridge University Press
- Inglehart, R., & Baker, W. E., 2000. *Modernization, cultural change, and the persistence of traditional values*. American Sociological Review, 65(1), 19-51.
- Inglehart, R., 2008. *Changing values among Western publics from 1970 to 2006*. West European Politics, 31(1-2), 130-146
- Jones, P., Trier, C. J., & Richards, J. P., 2008. *Embedding education for sustainable development in higher education: A case study examining common challenges and opportunities for undergraduate programmes*. International Journal of Educational Research, 47, 341-351.
- Kelly, P., 2006. *Learning for sustainable futures: One intervention*. Journal of Futures Studies, 10(3), 1-14
- Kolb, D., 1984. *Experiential Learning as the Science of Learning and Development*. Prentice Hall: Englewood Cliffs, NJ, USA
- Kuo-Hua Chen, 2019. *Transforming Environmental Values for a Younger Generation in Taiwan: A Participatory Action Approach to Curriculum Design*. Journal of Futures Studies, June 2019, 23(4): 79-96. DOI:10.6531/JFS.201906_23(4).0008
- Liu, S. C., & Lin, H. S., 2016. *Envisioning preferred environmental futures: exploring relationships between future-related views and environmental attitudes*. Environmental Education Research, 24(1), 80-96.
- Liu, S. C., 2019. *Genetically modified food for the future: examining university students' expressions of futures thinking*. International Journal of Science Education. doi:10.1080/09500693. 2019.1585995

McNamara, K. H., 2010. *Fostering sustainability in higher education: a mixed-methods study of transformative leadership and change strategies*. *Environmental Practice*, 12(1), 48-58.

Markley, O. W., & Harman, W. W., 1982. *Changing images of man*. Oxford: Pergamon Press.

Novy, M., Smith, M. L., & Katrnak, T., 2017. *Inglehart's scarcity hypothesis revisited: Is postmaterialism a macro- or micro-level phenomenon around the world?* *International Sociology*, 32(6), 683-706.

Polak, F., 1973. *The image of the future* (E. Boulding, trans. & abr.) San Francisco: Jossey-Bass. (Original Dutch edition, 1955).

Sterling, S., 2001. *Sustainable education: Revisioning, learning and change*. Totnes, UK: Green Books.

Stupar, A., Mihajlov, V. & Simic, I., 2017. *Towards the Conceptual Changes in Architectural Education: Adjusting to Climate Change*. *Sustainability* 2017, 9(8), 1355; <https://doi.org/10.3390/su9081355>

Tibbs, H., 2011. *Changing cultural values and the transition to sustainability*. *Journal of Futures Studies*, 15(3), 13-32

COUNTER-URBANISATION EXPERIENCE IN DEVELOPING COUNTRIES: THE CASE OF ISTANBUL METROPOLITAN AREA

CANSU KORKMAZ, H. FİLİZ ALKAN MEŞHUR

Cansu Korkmaz, Department of City and Regional Planning Konya Technical University

H. Filiz Alkan Meşhur, Department of City and Regional Planning Konya Technical University

ABSTRACT

Urbanization is the popular phenomenon in the 1950s that was replaced with counter-urbanization in the 1970s, which defines the population movement from metropolitan areas to rural settlements. The counter-urbanization mobility that is directly shaped by economic development, legal regulations, technological developments, causes the socio-economic and spatial transformation of rural settlements. Although there are exceptions, the counter-urbanization process is generally associated with economic development. The research aims to reveal the differences of the counter-urbanization movement in developed and developing countries in terms of process, causes, and effects, and how Turkey's counter-urbanization experience differs from the world examples. With this aim, the method of the research is to examine the counter-urbanization literature in-depth, to put forward the counter-urbanization conceptually. While rural development, gentrification, and sustainability are the focus of rural research in Turkey, the counter-urbanization which has a direct impact on rural areas, has not been sufficiently researched yet. In this way, this research contributes to the counter-urbanization literature. However, rural areas are ignored by the legal regulations, rural settlements which are the basis of the country's socio-economic and spatial sustainability are transformed from production centers to consumption centers with the effects of counter-urbanization. The differentiation of the counter-urbanization process according to country, region, and metropolitan scale and blurring of rural-urban borders in metropolitan cities make it difficult to define the counter-urbanization movement. In this context, the definition of the counter-urbanization process within the borders of the metropolitan area, the driving forces causing counter-urbanization, and its socio-economic and spatial effects on rural settlements were examined through the example of Istanbul, one of the most important metropolises of Turkey. As seen in the example of Istanbul, the transformation process of the rural life model and the rural economy, the social relations in rural areas, and the counter-urbanized social group differ from the world examples. While the counter-urbanization process emerged with the individual preferences of the households who are ready to adopt the rural life model, in developing countries such as Turkey is managed by mega-scale public and private investments, plan decisions, transformation in legal and administrative structure, and rent. While the rural life form is preserved in developed countries, the urban and rural population acts with a collective consciousness and social integration is ensured. For example, while the rural population transfers the place-specific knowledge to the urban population, the urban population supports rural production models with the integration of information technologies and contributes positively to the socio-economic development of the rural areas. In Turkey, legal regulations, directing public and private investments to rural areas by planning tools resulted in urban sprawl and rural areas and population urbanized with real-estate and construction-oriented development model. Moreover, counter-urbanized groups in Turkey even if the movement reason is natural and rural idly, they prefer to isolate themselves from the rural population socio-spatially and deepen the social segregation. Although the counter-urbanization process in Turkey started at the local level in the 2000s, factors such as the socio-economic

problems experienced in the recent period, the increase in density in the cities and urban problems, the change in the urban demographic structure, and the pandemic trigger the desire for life in the rural areas, and it is observed that the counter-urbanization trend will continue. In this context, to define the counter-urbanization concept clearly and examine the counter-urbanization process in the world is so important to guide the counter-urbanization process in Turkey.

KEYWORDS: Counter-urbanisation, repopulation of rural, ex-urbanization, İstanbul

1. INTRODUCTION

After the industrial revolution, the population started to increase rapidly in urban areas globally. The urban population rate increased from 30% to 55% since the 1950s when all countries have entered a rapid urbanization process. Although urbanization differs under the influence of socio-economic and spatial structure, the positive relationship between settlement size and population growth is widely accepted by researchers until the 1970s (Beale, 1975; Mitchell, 2004; Johnson et al., 2005; Johnson and Lichter, 2019). Then, the rural population has started to increase, and counter-urbanization which is defined as a movement from metropolitan areas to rural settlements has become the new focus of the research. Counter-urbanization is also referred to with concepts such as rural renaissance, back-to-rural, or exodus. Although, urbanization is dominant in the population movement process, developing and developed countries have counter-urbanization examples in the level of province, region, or districts. Counter-urbanization is also directly affected by economic development, legal regulations, the mindset of decision-makers, the planning process, investment policies, and socio-cultural life. Although studies are showing that the counter-urbanization movement is not a result of economic development (Gkartzios, 2013; Gkartzios et al., 2017; Gkartzios and Scott, 2015), it is associated with the developed economy. In developed countries, the counter-urbanization process is managed by individual decisions of counter-urbanist who are ready for rural life. In contrast to developed countries, the counter-urbanization process in Turkey is governed by mega-scale projects, plan decisions, and changes in legal and administrative structure rather than individual preferences. While rural life is conserved in developed countries, the rural population and the counter-urbanists act with a collective consciousness, and social integration is ensured. In developing countries, counter-urbanization urbanizes the countryside and rural life. Moreover, changing legal regulations about rural settlements such as Law No. 6360, have played an active role in the socio-economic and spatial transformation of the countryside. In addition, recent research shows that the Covid-19 pandemic has triggered the counter-urbanization movement, because of the opportunity of a home office and teleworking communication technologies and being independent of the place due to curfews. It claims that the demand in living low-density regions and rural settlements will continue to increase in the short term (Cooke, 2020). The focus of the research is to reveal the differences of the counter-urbanization movement in developed and developing countries in terms of process, causes, and effects, and how Turkey's counter-urbanization experience differs from the world examples. With this aim, the method of the research is to examine the counter-urbanization literature in-depth, to put forward the counter-urbanization conceptually. In the light of the discussions in the literature, the concept of counter-urbanization through Istanbul metropolitan city which is socio-economically and culturally developed and continues to grow rapidly in terms of population was discussed. The paper highlights the positive and negative aspects of the counter urbanization process from socio-spatial and economic perspectives. Although counter urbanization debates have been conducted since the 1970s, there is no research about counter urbanization movement in Turkey. This research aims to set out to address the gap via debating the process, effects, and causes. This research consists of four main chapters. After the introduction chapter, the second chapter debates the theoretical background about counter-urbanization, push and pull factors, the counter-urbanization story of the world examples, and negative and positive effects on rural settlements. It is followed by the chapter on methodology and the counter urbanization in Istanbul metropolitan areas: process, causes, and effects on rural settlements. In the conclusion part, the research debates the differences of the counter urbanization process in developing and developed countries and set policies for creating sustainable rural development.

2. THE CONCEPT OF COUNTER-URBANISATION

Global changes such as industrialization and modernization process have triggered the concentration of the population in cities, and urbanization has been at the center of population mobility since the 1950s. Urbanization, beyond population concentration in cities, expresses the increase in the number of cities due to industrialization

and economic development, and the social phenomenon and population accumulation process in which economic models that create an organization, division of labor, and specialization are also reflected in human behaviors and relations (Keleş, 2014). After World War II, problems related to urban population growth, developments in transportation infrastructure, and technology, led to the migration of urban population and urban life in the United States, to the periphery and formed suburbs and suburbanization. These low-density suburbs were economically dependent on the metropolitan areas and were used as dormitories. This is the beginning of the process of detachment from the city, which results in counter-urbanization. Rural areas in the periphery of the city have been affected by the international economic structuring, the capital accumulation process and the change in investment models, urban sprawl, and increasing population mobility. The rural settlements around the metropolitan area, where the urban and rural fabric is in interaction, occurred in urban areas where socio-economic and spatial rural-urban activities were carried out together. Although counter-urbanization was conceptualized for the first time by Beale (1975), it has been included in the research as suburbanization, coastal city formation, the process of breaking away from the city that started with the new urbanism movement, back to the rural, rural renaissance. In the 1960s, for the first time in the United States, the urban population growth began to decline, the city center population began to lose, and the population growth rate of rural settlements began to outpace the metropolitan area. Berry (1976) stated that the urbanization trend has changed, the United States has reached the turning point of urbanization, and the counter-urbanization movement has begun to be replaced by urbanization as the dominant force shaping the settlement pattern of the country and brought the concept of counter-urbanization, which expresses the population movement to the lower-level settlements in the urban hierarchy, into the literature as a geographical term. Although the concept of counter-urbanization defines the redistribution of the population from metropolises to rural areas in general terms, the lack of cumulative evidence, the inability to reveal the process based on objective data, the wide range of factors affecting the decision to relocate the population, the differentiation of the process at the country, regional and even city scale, makes difficult to define, establish and develop consensus on the concept of counter-urbanization (Halliday and Coombes, 1995; Sant and Simons, 2008). For this reason, the concept of counter-urbanization has been handled and conceptualized with different dimensions by different theorists.

While Champion (1989) states the concept of counter-urbanization as the population flow to the lower levels in the urban hierarchy, he emphasizes that to define this movement as a counter-urbanization, immigrants should be embraced rural life even if it is not identical with a traditional rural lifestyle. In other words, he emphasized the socio-economic dimension of counter-urbanization and revealed the main factors that led to counter-urbanization. Geyer and Kontuly (1993) define counter-urbanization as the last stage of the differential urbanization model, which describes three stages in the settlement hierarchy based on settlement size and net migration patterns. Fielding (1982) argues that there is a positive relationship between settlement size and migration in the urbanization process and a negative relationship between settlement size and net migration in the counter-urbanization process. Cochrane and Vining's (1988)'s approach considers the core and periphery regions. In this context, core defines large metropolitan areas with one or more sub-regions, peripheral regions describe the areas outside these areas. When the net migration rates are examined, the tendency of the population to centralize describes urbanization, and the population flow from the center to the outside describes urbanization. Halfacree (2008) associated the socio-economic structure with the counter-urbanization movement and defined it as the movement of middle and upper-class families to the rural area for a new life. Counter-urbanization is defined by Vartiainen (1989) as a diffusion mechanism of urban-centered behaviors and culture rather than an anti-urban population trend. Similarly, Halliday and Coombes (1995) argue that counter-urbanization is more than the relocation of urban residents to rural areas, that the movement of the population, individually or in groups, to maintain an anti-urban lifestyle cannot only be defined as a sign of counter-urbanization. Moseley (1984) explains the counter-urbanization movement with a business-oriented and people-oriented approach that deals with its economic and sociological dimensions. Kontuly (1998) argues that the main factors affecting the site selection decision are the economy, emphasizing that nature and housing preference are minor reasons in the European versus urbanization process.

2.1. Counter-Urbanization Motivations: Push and Pull Factors

While the motivations that cause counter-urbanization vary according to the socio-economic structure of the country, spatial, demographic, and cultural structure, government policies, and technological developments

constitute the main reason for migration from the city to the countryside. Although counter-urbanization motivations differ according to countries, studies have tried to reveal these factors with household surveys and statistical analysis afterward. The displacement characteristics of the population differ in developed and developing countries. While developing economies concentrate on basic resources to maintain high productivity with limited resources, accumulated capital and technological advances in developed economies provide more mobility and, living spaces and populations can be decentralized (Geyer, 1996).

Although the counter-urbanization movement is generally associated with developed economies, as in the example of Greece, the increased unemployment and urban cost of living after the economic crisis can trigger migration to rural areas. While Mitchell (2004) explains forced departure from the city as a solution to economic problems with the concept of displacement, he defines counter-urbanization as a migration to the countryside without any compulsory and being physically and psychologically ready for the rural lifestyle. In addition, while spatial factors such as social ties, employment capacity, and natural environment, landscape, cultural heritage, accessibility, and rural attractiveness are effective, current studies in developing countries reveal that the main reason for counter-urbanization is economic, and these factors are defined as secondary factors that affect migrant decisions. In contrast in developed countries such as the United States, America, and the other European countries, displacements due to nature (natural beauty of the countryside, need for open space, privacy, social integration) is more on the agenda. Similarly, Halfacree and Boyle (1998) argue that although the concept of a rural idyll, which emphasizes the environmental feature of the countryside is the most preferred in the literature as a counter-urbanization motivation, environmental factors cannot be sufficient for the counter-urbanization movement unless the necessary economic conditions are provided. In the historical process, it is seen that migration and the economy are related. While the economic growth in the metropolitan area attracted the population, increasing costs due to urbanization, congestion in transportation and the decrease in spatial dependence with the development of communication infrastructure caused the decentralization of capital. While urban factors create the push forces for counter-urbanization, socio-economic, cultural, and technological developments of the rural settlement are pull factors that make rural areas attractive (See Table 1).

The expansion of residential areas around employment centers
The emergence of scale economies and social problems in metropolises
The concentration of rural population in urban centers
Presence of state subsidies for rural activities
Employment growth in decentralized sectors such as mining, defence, and tourism.
Restructuring of the manufacturing industry and opening of factories in the countryside
Advances in transportation and communication technology
Improving education, health, and other infrastructure in rural areas
Employment growth in the public sector and personal services
The success of spatial government policies
Increase in state welfare payments, private pensions, and other benefits
Accelerating retirement migration
Change in housing preferences of people of working age and entrepreneurs
Changes in age structure, household size, and composition
The effect of economic recession on rural to urban and return migration
Decentralization of trade with a new model of capital investment in property and trade

Table 1. Main Factors Revealing Counter-Urbanization Migration in the 1970s (Champion, 1989).

Counter-Urbanization studies show that in addition to the spatial characteristics of the urban and the countryside, the socio-cultural and economic structure and family types of the migrating families are also effective in the decision to move to the countryside. Although parents seem to be the only decision-makers on immigration, having children is effective in movement decisions. The desire to raise their children in more decent

areas, intertwined with nature, emerges as a socio-spatial motivation for the counter-urbanization movement. In this process, the opportunity to raise children in low-density and safe rural areas for young adults is preferred to the employment advantage of the city center. Another social phenomenon that triggers counter-urbanization is the desire of groups with similar ethnic, cultural, and economic structures to live together (Smith et al., 2018).

Counter-urbanization motivations are directly related to spatial location selection criteria and socio-economic structure, and the factors that cause counter-urbanization also determine the type of counter-urbanization. In the literature, counter-urbanization is examined in four types; Ex-urbanization, displaced-urbanization, anti-urbanization, commercial counter-urbanization. While exurb is a transition zone of urban and rural areas with low population density and has socio-economic and functional relations with the metropole, ex-urbanization can be defined as a movement to the exurbs of high-income groups because of natural beauties but still have an economic and functional connection with the city (Spectorsky, 1958). In contrast to ex-urbanization, dis-urbanization describes the household movement motivated by economic reasons such as employment capacity, low cost of living, access to housing, not the natural character of the settlement. In other words, while ex-urbanization is the desire of the high-income group to reach better living conditions, dis-urbanization describes the process of displacement of the middle and lower-income groups due to economic reasons (Mitchell, 2004). Anti-urbanization describes the population movement that represents anti-urban sentiment and rejects urban life. Vaetisi (2013) argues that the reason for the migration of "antiurbanites" (anti-urbanites) is to escape from urban problems such as crime rate, tax, traffic, and pollution in the cities, to desire to live and work in low-density settlements, and rural environment. Finally, commercial counter-urbanization is related to demographic change and economic growth. Bosworth (2019) defines counter-urbanization as the growth of the rural economy stimulated by internal migration and defines its three main components as housing movement, the establishment of rural businesses, and local embeddedness. Commercial counter-urbanization refers to rural migration by educated, economically active, and talented upper-income groups to rural areas that provide a competitive advantage in terms of human capital and economics, and rural areas turn into business development centers in terms of market, technology, and human capital (Halfacree, 1998; Mitchell and Madden, 2014; Bosworth, 2006) (Table 2).

Economic Factors	Socio-Spatial and Environmental Factors
Economic fluctuations	Urban environmental and social problems
The local economy, business potential	Environmental facilities, suitable climatic conditions, and location advantage of the countryside
Decentralization of residential investments	The development of tourism and the growth of the workforce in the recreation industry
Decentralization of Industry	Increasing home office opportunities
Urban socio-economic problems	Change in socio-demographic structure, the aging of the population, and the formation of potential rural immigrants
Rural development incentives	
Low rural cost of living	
Regional Entrepreneurship skills	Improvements in transportation and communication technologies

Table 2. Push and Pull Factors for Counter-Urbanization

Although some recent studies argue that the pandemic also triggers counter-urbanization, some others highlight that decreasing housing stocks and increasing prices in suburban and rural areas compel people to live in urban areas and that the population who wants to migrate from rural areas to urban areas for economic and socio-cultural reasons postpones their decision to migrate due to the Pandemic. Another study reveals that the arrangements for working from home will continue after the Pandemic, and in this case, the low and middle-income population group, including the working class, will tend to move to low-cost areas in the surrounding area due to the high cost of the city, and rural areas will remain under intense urbanization pressure (Delventhal, 2021).

2.2. Counter-Urbanization Trends in the World

The break from the city, which started with the "White Flight" in the USA, with middle and upper-class whites moving to the suburbs to avoid living in areas with high racial minorities, resulted in the counter-urbanization movement, which moved out of the suburbs and migrated to rural areas after the 1970s. After the Second World

War, changes in automobile usage, commuting habits, spending and savings patterns and taxes, energy and nature, and privacy accelerated the migration to the suburbs, and the cities spread to the periphery and rural settlements. The suburbs, which became the privileged living center of the white race until the 1970s, lost their spatial privileges with the relocation of groups with different socio-cultural and economic structures, and the rural settlements outside the suburbs were transformed for real estate investments. This movement, which started with a break from the city to the suburbs, was shifted to the countryside, revealing the concept of counter-urbanization (Beale, 1975). Urbanization, which was the dominant process shaping the settlement patterns of the country in the 1960s, was replaced by the counter-urbanization process and a new settlement system began to be seen. The concept of counter-urbanization was first introduced by the American scientist Brian J.L. Berry and the counter-urbanization movement has started to be seen in American cities for the first time. In the USA, the abandonment of industries such as mining and forestry from the metropolitan area, the desire for connection with nature, increasing of the retired population, increasing access services in rural areas, and negative impact of cities (traffic, costs and taxes, pollution, density), improved transportation infrastructure have attracted the counter-urbanization movement. The concept of counter-Urbanization, which was researched as mass migration to the countryside in the USA in the 1970s, is accepted as the demographic feature of most countries in America and Europe. The concept of counter-urbanization, inspired by political economy, has been the subject of strong economic and class-based research and has been associated with the unequal spatial dynamics of the capitalist production process (Halfacree, 2008).

The United Kingdom, which has an important country in the history of world industrialization, entered a rapid urbanization process in the 18th and 19th centuries, and the population began to migrate from rural areas to cities with new employment centers. While the desire of the population to provide employment, to be close to health, education and other social opportunities caused agglomeration in the cities, the cost of living, crime rates, and density in the cities gradually increased. This process triggered the counter-urbanization process, which defined the migration of the population from the cities to the lower-level settlements and rural areas (Champion, 1989). In the report prepared for the 1979 Environmental Quality Annual Report, when the migration data between 1970-78 are examined, it is observed that the city center entered the process of losing population and the migration to suburbs and rural areas increased in this period. There are 3 critical periods for counter-urbanization in Britain. In the 1960s, the decentralization process started, the urban population shifted to the urban periphery. The second urban population lost is in the 1970s and London metropolitan area shifted to the west and north settlements such as New Burry and Stortford. In 1973-74 alone, London lost the 100,000 population it had gained in ten years. While the national population growth was 0.6% between 1971-81, London continued to lose 3.4%. In this period, while the metropolitan area of England lost 6.5% of the population, there was a 6% increase in population in rural areas. After the 1980s, the counter-urbanization process continued and the largest 20 cities of the UK lost 500.000 jobs, whereas rural settlements and medium-sized cities gained 1.7 million jobs (Champion, 1989). In the UK, decentralization of industry, government policies, incentives, and grants in rural economies including farming, forestry, tourism, development in communication technologies, improvement of social infrastructure socio-spatial problems of megacities caused a downward movement of the population. The decentralization process of the population in England was supported by the Green Belt and New Town policy by the post-1950 administration, and this was the beginning of the counter-urbanization movement. While these projects, which foresee strategies for the development of rural areas by restricting the growth in city centers, accelerated the counter-urbanization process in England, the new cities created by law between 1946-1970 (Milton Keynes, Cramlington, Sunderland, Berkshire, etc.) also set the first examples of the counter-urbanization movement.

Although the Canadian countryside and towns began to gain population in the post-1970 period, studies have revealed that there is not enough evidence for urbanization movement against this period (Joseph et al., 1988). Until the 1980s, it was revealed that the dominant force in population growth in rural areas was urban sprawl. In Canada, the main reasons for the growth of rural settlements, where the counter-urbanization movement is experienced, are expressed as the desire of the retired population to reach the rural idyll, the high entrepreneurial capacity of the countryside, the Victorian housing stock, and the daily commute to the city center (Dahms and McComb, 1999).

In developing South Asian countries (such as Bangladesh, Bhutan, Nepal, India, Sri Lanka, Pakistan, etc.), counter-urbanization is a new phenomenon, but it has had an impact on the land use pattern and real estate market. Counter-urbanization in South Asia is managed by economic factors, taxes, transportation costs, and scarce resources and employment centers that go out of the metropolitan area cause the population to concentrate in rural settlements (Sarker et al., 2018). In South Asia, counter-urbanization is defined as an economic transformation, and it emphasizes the development of an urban-rural form. Environmental and economic

sustainability is being lost with the acceleration of the counter-urbanization movement. Considering the example of Tokyo, which is an important center with its public service delivery, it has been observed that the demand for services in the center has decreased with the counter-urbanization movement, and accordingly, physical, and economic investments have been withdrawn from the city, and this has negatively affected the physical, social, and economic sustainability of the city as well as the rural areas.

Counter-urbanization literature reveals that the counter-urbanization experience differs in developed and developing countries. While developing countries move from the city center to rural settlements based on economic axes, the counter-urbanization movement in developed countries is made for rural life and nature-oriented reasons. In addition, the social profile is changing in developed and developing countries. While the population group that is ready to adopt rural life in developed countries, living in the countryside or experiencing rural production models, raising their children in a safer, cleaner, and natural environment, preferring a rural-centered life, although they do not completely break their ties with the city, migrate from the city to the countryside, in developing countries, against urbanization, the density of the city, pollution, security, etc. This results in the middle-upper income group, who want to escape from the problems, settling in the countryside, but taking the urban habits and demands with them while settling. This urban population settling in the countryside complains about the basic characteristics of rural life (spatial structuring, production model, provision of basic services, etc.) and urbanizes rural life over time. Counter-urbanization also has positive and negative consequences on rural settlements. The location of non-agricultural economies in rural areas has prevented the migration of the young population from rural areas to cities. While the middle and upper age population is engaged in agricultural activities, the employment of the young population in non-agricultural economic activities increases the household income in rural areas and paves the way for them to invest more in agriculture. In addition, more investors prefer rural areas to benefit from cheap labor and land opportunities in non-agricultural activities, while large-scale industrial investments and mining activities can create a transformation that will end agricultural production in the region by attracting agricultural employment and polluting factors. In addition to industrial and mining activities, the location of mass tourism activities in the rural area causes an increase in housing and land prices, transforms rural life socio-economically, and incompatibility and conflict are observed between local and new social profiles. Although the new group that chooses a place in the countryside seems to advocate the protection of the rural landscape and monumental values, the need for land, housing and social reinforcement of the increasing population put pressure on the protected areas, and many of the non-agricultural activities that choose a place in the countryside make rural protection impossible (Öğdül, 2009).

3. RESEARCH METHODOLOGY

Although Counter-Urbanization became popular in world literature in the 1970s, there has not been enough research on Turkey's Counter-Urbanization process and its effects. The conceptualization of the Counter-Urbanization movement in Turkish literature, the determination of the situation, and the determination of the results of the counter-urbanization on the countryside require an in-depth examination of the concept of Counter-Urbanization. In this context, a literature review was determined as a research methodology. The literature review aims to set a comprehensive theoretical background for the recent and further studies, the limit of the research, and shed light on future studies. In this context, the counter-urbanization research carried out in different geographies in the world was examined according to the periods, and the socio-economic and spatial causes and consequences of the counter-urbanization movement were revealed (Table 3).

Country	References
USA	Berry (1977) (C)*, McCarthy and Morrison (1977) (E), Gordon (1979) (C), Fuguitt (1985) (L).
Europe	Fielding (1982) (E), Coombes (1989) (C), Vartiainen, 1989 (E), Kontuly (1998) (C), Gkartzios et al., (2017) (E), Sandow ve Lundholm (2019) (E), Karsten (2020) (E), Anastasiou and Duquenne (2020) (E).
The United Kingdom	Dean (1984) (E), Coombes (1989) (C), Bolton and Chalkley (1990) (E), Champion (1992) (L), Halfacree (1993) (E), Halliday and Coombes (1995) (E), Fielding (1998) (E), Champion (1998) (C), Gorton (1998) (E), Allen and Mooney (1998) (C), Stockdale et al., (2000) (E), Halfacree (2008) (C), Burchardt (2012) (E), Halfacree (2012) (E).
Asia	Sarker et al., (2018) (E), Yuan et al., (2021) (E).
Canada	Mitchell (2004) (C), Mitchell and Madden (2014) (E), Mitchell (2019) (E), Mitchell and Bryant (2020) (E).

Table 3. The main counter-urbanization research from the 1970s to the present

*C= Conceptual analysis, E= Empirical research, L= Literature Review

4. COUNTER URBANIZATION IN İSTANBUL METROPOLITAN AREAS: PROCESS, CAUSES, AND EFFECTS

Although the concept of rural is not included in the Turkish legal regulation and administrative structure, settlements at the village, town, or district level are conceptualized as rural. Therefore, it is necessary to consider the counter-urbanization debates not as migration from the city center to the countryside, but as a movement towards rural-characteristic settlements. The Neoliberal era, which was effective in the 2000s, transformed rural areas on the axis of globalization, and the clear differences between urban and rural areas began to disappear by changing the political, demographic, and cultural relations. While rural areas are transformed into a structure where non-agricultural activities are also chosen, environmental features are presented as commodities in the tourism sector, and homogeneous social structure and culture are diversified, the concept and boundaries of city and countryside have begun to blur. Rural areas have been transformed with the changing socio-economic, administrative, legal, and spatial restructuring process in Turkey as in the world. The choice of location for non-agricultural activities in the countryside and the services sector in rural areas began to dominate agriculture, and the rural area began to turn from producer to consumer center.

Istanbul, the metropolitan city of Turkey, which is socio-economically and culturally developed and continues to grow rapidly in terms of socio-economic and physical, has the first examples of counter-urbanization movement in Turkey. The population of Istanbul is 15,462,452 compared to 2020, and for the first time in many years, the population has decreased compared to the previous year. 50.13% of the population is male, 49.87% is female (TÜİK, 2020). Istanbul has a linear development along the Bosphorus and east-west axis within the historical development process. Also, with its economic, geopolitical, social, and environmental characteristics, Istanbul, which is an important metropolis not only of the Marmara Region but also of Turkey, strengthens its spatial and economic relations with East Marmara with the upper scale plan decisions and large-scale urban investments attract the population to the region. However, the rapid population increase, large-scale urban projects, spatial limitations, planning decisions, and neoliberal policies have turned the development direction of the city to the north, which is a natural zone of İstanbul with its basins, wetlands, nature parks, dams, dunes, and rich biodiversity, which are the habitats of endemic species. In the 1990s, the population flow started from the metropolitan area to the rural settlements in the north, this process accelerated after the 1999 earthquake, and Istanbul met with the counter-urbanization movement. In the early 2000s, with the effect of neoliberal policies in the city, the rural settlements were transformed, and in 2012, the village status was abolished with law no. 6360 and the rural settlements gained an urban status. However, in the settlements constituting the northern border of Istanbul, these areas, which were previously considered villages, mostly preserve their rural characteristics.

The macro form of Istanbul is largely shaped by transportation projects and public or semi-public mega-scale projects. During the transition to the planned period covering the years 1969-1980, the increase in automobile production, the increase in vehicle ownership, the unbalanced spatial development on the Anatolian and European sides brought the bridges connecting the two continents to the agenda. While the bridges strengthened the transit transportation function of the city, they triggered urban sprawl throughout the north. The upper-scale planning experience of Istanbul started with the upper-scale physical plans in the 1980s and was shaped by cancellations and revisions until the 2000s. Another effective land-use decision in urban sprawl is the gathering of industries that chose a place around transportation networks in the 1980s, under the roof of the organized industrial zone. With the idea that Istanbul should have airports on both sides on the way to becoming a global center, the construction of Sabiha Gökçen Airport in Pendik started in 1998. The airport, which started flights in 2001, has created an attraction center with the hotel, shopping center, technopark, and TEM Highway connections. 1/100,000 scaled Istanbul Environmental Plan came into force in 2009. Although the plan does not foresee development to the north with important water basins, agricultural and forest areas, wetlands, and important endemic species, project-based revisions and fragmentary interventions prevented this. The logistics sub-center and industrial areas envisaged in the north of the metropolitan area have confronted the natural areas that need to be protected with structuring pressure, and the development of Istanbul, which has developed in the east-west direction in the historical process, has been directed to the north. Although the Istanbul Environmental Plan, as in other plans, foresees minimizing the pressure of urbanization on the natural environment in the north and preventing development in the north, the emergence of new mega-scale

investment decisions has accelerated the development activities in the north at an unprecedented rate and the land has begun to change hands. While Istanbul Airport, the 3rd Bridge (Yavuz Sultan Selim Bridge), the Northern Marmara Highway and its connection roads, the Canal Istanbul Project, and the rail system projects that strengthen the transportation between the projects, direct the Istanbul microform to the north, ecological and natural thresholds remained under the pressure of settlement. Although the mega projects and urban transformation projects that are not compatible with the regional and upper scale plan decisions and increasing in number are criticized because they destroy the ecological areas and water resources of the city, disrupting the demographic and spatial balance of the plan, the macro form of the city, and the rural-urban relationship, this spatial transformation causes the counter-urbanization movement. also triggers. While the urban population that wants to escape from the increasing problems of the city center starts to settle in rural areas, many rural settlements are under the pressure of urbanization. As it can be seen, the decisions taken in a global city like Istanbul, in which many socio-economic, political, and spatial factors play a role, trigger population mobility as well as the spatial structure and macro form of the city.

The Reasons for Counter-urbanization Movement	The Effects of Counter-urbanization on Rural Settlements
Increased density, pollution, traffic, and cost of living in the city center	Urbanization of rural areas
The change of social profile in the city center	Spatial isolation and social segregation problem in rural areas
Increasing crime rates and the desire for an isolated life	The disappearance of rural production models
The decrease in quality of building stock and lack of green and recreation areas, earthquake risk	The pressure of construction on the natural environment
Pandemic	The rising cost of living in the countryside
The natural structure of the countryside	Disruption of rural morphology
Planning decisions and mega-scale transportation projects	Increase in land, land, and housing prices
	Rural economic development, new job opportunities

Table 4. The main reasons and effects of counter-urbanization in Istanbul

In developed world examples, while counter-urbanization is carried out by the population who is ready to adapt to rural life (with the attractive aspects and problems of the countryside), as in the case of Istanbul, the counter-urbanization movement takes place from the dilapidated city center of the high-income group to rural settlements with the aim of living an elite life. Although this group set out with the so-called rural idyll concept of the countryside, they complain about rural qualities over time and bring urban qualities to the countryside. Rural areas, especially in the northern districts, which stand out with their natural structure and are defined as the lungs of Istanbul, have been reshaped and urbanized with the invasion of this population group. In addition, this population group leads a spatially and socially isolated life in security-closed housing estates, deepening social segregation. This approach, which does not like the villagers, who are the real owners of the countryside, and treats them as second class, brings with it social problems. In addition, the housing typology produced due to the increasing population is not compatible with the countryside. This increasing settlement puts the areas that must be protected, such as forest areas, catchment areas, and natural areas, under the pressure of construction. Undoubtedly, this situation is shaped by public and private sector investments, not by individual decisions, as is the case with counter-urbanization in the world. At the same time, the new socio-economic and spatial structuring created by the counter-urbanization movement increases the cost of living in the countryside and causes the villagers to leave the countryside who are living with agriculture, farming, and forestry (Table 4).

5. CONCLUSION

Although there are many factors affecting the counter-urbanization movement, the process, triggering factors and their effects on rural life differ in developed and developing countries. Rural areas are an important focus in ensuring the sustainability of the country, and the conservation of the countryside needs to be rethought in terms of legal process, administrative structure, and planning process. Although the decisions in regional plans for rural are seen that these strategies are insufficient in terms of socio-economic and spatial sustainability of rural areas. Because when the plans are examined, it is seen that urban decisions are produced for rural settlements. This situation urbanizes the countryside and attracts the population to rural settlements. Although the causes and consequences of the counter-urbanization movement are different, it is a part of the population

displacement process and has been observed in the world since the 1970s. Of course, Turkey's counter-urbanization experience will be different from other countries. In this context, the determination of counter-urbanization centers in the light of objective data will guide the planning decisions of the possible results of the counter-urbanization movement. In addition, unlike regional plans and upper-scale plans that show rural settlement as a compact or a blemish, it requires special plans for rural areas that are examined in depth with their socio-economic and spatial texture, and the potential for counter-urbanization is clearly revealed. Otherwise, unlike the world examples that protect and prioritize the countryside, an approach that destroys the countryside will continue to be adopted.

REFERENCES

- Anastasiou, E., & Duquenne, M. N. (2020). Determinants and Spatial Patterns of Counterurbanization in Times of Crisis: Evidence from Greece. *Population review*, 59, 85-110. doi:10.1353/prv.2020.0004.
- Beale, C. L. (1975). *The Revival, of Population Growth in Nonmetropolitan America*. (ERS-605). Retrieved from <https://files.eric.ed.gov/fulltext/ED108813.pdf>.
- Berry, B. J. L. (1976). *Urbanization and Counterurbanization* Beverly Hills, Calif. : Sage Publications, c1976.
- Bolton, N., & Chalkley, B. (1990). The rural population turnaround: a case-study of North Devon. *Journal of Rural Studies*, 6(1), 29-43. doi:[https://doi.org/10.1016/0743-0167\(90\)90027-6](https://doi.org/10.1016/0743-0167(90)90027-6).
- Bosworth, G., 2006, Counterurbanisation and Job Creation: Entrepreneurial In-Migration and Rural Economic Development, Centre for Rural Economy Discussion Paper Series No. 4, University of New Castle Upon Tyne, <https://www.ncl.ac.uk/media/wwwnclacuk/centreforruraleconomy/files/discussion-paper-04.pdf>.
- Bosworth, G., & Bat Finke, H. (2019). Commercial Counterurbanisation: A driving force in rural economic development. *Environment and Planning A: Economy and Space*, 52(3), 654-674. doi:10.1177/0308518X19881173.
- Burchardt, J. (2012). Historicizing counterurbanization: In-migration and the reconstruction of rural space in Berkshire (UK), 1901–51. *Journal of Historical Geography*, 38, 155–166. doi:10.1016/j.jhg.2011.08.017.
- Champion, A. G. (1989). Counterurbanization in Britain. *The Geographical Journal*, 155(1), 52-59. doi:10.2307/635380.
- Champion, A. G. (1992). Urban and Regional Demographic Trends in the Developed World. *Urban Studies*, 29(3-4), 461-482. doi:10.1080/00420989220080531.
- Champion, T., Atkins, D., Coombes, M., & Fotheringham, S. (1998). *Urban Exodus Report*: Council for the Protection of Rural England.
- Cochrane, S. G., & Vining, D. R. (1988). Recent Trends in Migration between Core and Peripheral Regions in Developed and Advanced Developing Countries. *International Regional Science Review*, 11(3), 215-243. doi:10.1177/016001768801100301.
- Cooke, K. (2020). Planners and the Growing Trend of Counter-Urbanization. Retrieved from <https://www.esri.com/en-us/industries/blog/articles/planners-and-the-growing-trend-of-counter-urbanization/>.
- Coombes, M., Longga, R. D., & Raybould, S. (1989). Counterurbanisation in Britain and Italy: A comparative critique of the concept, causation and evidence. *Progress in Planning*, 32, 1-70. doi:[https://doi.org/10.1016/0305-9006\(89\)90009-3](https://doi.org/10.1016/0305-9006(89)90009-3).
- Dahms, F., & McComb, J. (1999). 'Counterurbanization', interaction and functional change in a rural amenity area — A Canadian example. *Journal of Rural Studies*, 15(2), 129-146. doi:[https://doi.org/10.1016/S0743-0167\(98\)00056-4](https://doi.org/10.1016/S0743-0167(98)00056-4).
- Dean, K. G., Shaw, D. P., Brown, B. J. H., Perry, R. W., & Thorneycroft, W. T. (1984). Counterurbanisation and the characteristics of persons migrating to West Cornwall. *Geoforum*, 15(2), 177-190. doi:[https://doi.org/10.1016/0016-7185\(84\)90030-7](https://doi.org/10.1016/0016-7185(84)90030-7).
- Delventhal, M. J., Kwon, E., & Parkhomenko, A. (2021). JUE Insight: How do cities change when we work from home? *Journal of Urban Economics*, 103331. doi:<https://doi.org/10.1016/j.jue.2021.103331>.
- Fielding, A. J. (1982). Counterurbanisation in Western Europe. *Progress in Planning*, 17, 1-52. doi:[https://doi.org/10.1016/0305-9006\(82\)90006-X](https://doi.org/10.1016/0305-9006(82)90006-X).

- Fuguitt, G. V. (1985). The nonmetropolitan population turnaround. *Annu Rev Sociol*, 11, 259-280. doi:10.1146/annurev.so.11.080185.001355.
- Geyer, H. (1996). Expanding the theoretical foundation of differential urbanization. *Tijdschr Econ Soc Geogr*, 87(1), 44-59. doi:10.1111/j.1467-9663.1998.tb01536.x.
- Geyer, H. S., & Kontuly, T. (1993). A Theoretical Foundation for the Concept of Differential Urbanization. *International Regional Science Review*, 15(2), 157-177. doi:10.1177/016001769301500202.
- Gkartzios, M. (2013). 'Leaving Athens': Narratives of counterurbanisation in times of crisis. *Journal of Rural Studies*, 32, 158-167. doi:<https://doi.org/10.1016/j.jrurstud.2013.06.003>.
- Gkartzios, M., Remoundou, K., & Garrod, G. (2017). Emerging geographies of mobility: The role of regional towns in Greece's 'counterurbanisation story'. *Journal of Rural Studies*, 55, 22-32. doi:<https://doi.org/10.1016/j.jrurstud.2017.07.011>.
- Gkartzios, M., & Scott, K. (2015). A Cultural Panic in the Province? Counterurban Mobilities, Creativity, and Crisis in Greece. *Population, Space and Place*, 21. doi:10.1002/psp.1933.
- Gordon, P. (1979). Deconcentration without a 'Clean Break'. *Environment and Planning A: Economy and Space*, 11(3), 281-289. doi:10.1068/a110281.
- Gorton, M., White, J., & Chaston, I. (1998). Counterurbanisation, Fragmentation and The Paradox of The Rural Idyll. In P. B. Keith Halfacree (Ed.), *Migration into Rural Areas: Theories and Issues* (pp. 215-235). Chichester: John Wiley & Sons Ltd.
- Halfacree, K. (2008). To revitalise counterurbanisation research? Recognising an international and fuller picture. *Population, Space and Place*, 14(6), 479-495. doi:10.1002/psp.501.
- Halfacree, K. (2012). Heterolocal Identities? Counter-Urbanisation, Second Homes, and Rural Consumption in the Era of Mobilities. *Population, Space and Place*, 18(2), 209-224. doi:<https://doi.org/10.1002/psp.665>.
- Halfacree, K. H. (1993). Locality and social representation: Space, discourse and alternative definitions of the rural. *Journal of Rural Studies*, 9(1), 23-37. doi:[https://doi.org/10.1016/0743-0167\(93\)90003-3](https://doi.org/10.1016/0743-0167(93)90003-3).
- Halfacree, K., & Boyle, P. (1998). Migration into Rural Areas: A Collective Behaviour Framework? In P. B. Keith Halfacree (Ed.), *Migration into Rural Areas* (pp. 303-317). Chichester: John Wiley&Sons.
- Halliday, J., & Coombes, M. (1995). In search of counterurbanisation: Some evidence from Devon on the relationship between patterns of migration and motivation. *Journal of Rural Studies*, 11(4), 433-446. doi:[https://doi.org/10.1016/0743-0167\(95\)00032-1](https://doi.org/10.1016/0743-0167(95)00032-1).
- Johnson, K., & Lichter, D. (2019). Rural Depopulation: Growth and Decline Processes over the Past Century: Rural Depopulation. *Rural Sociology*, 84. doi:10.1111/ruso.12266.
- Johnson, K. M., Nucci, A., & Long, L. (2005). Population Trends in Metropolitan and Nonmetropolitan America: Selective Deconcentration and the Rural Rebound. *Population Research and Policy Review*, 24(5), 527-542. doi:10.1007/s11113-005-4479-1.
- Karsten, L. (2020). Counterurbanisation: why settled families move out of the city again. *Journal of Housing and the Built Environment*, 35(2), 429-442. doi:10.1007/s10901-020-09739-3.
- Keleş, R. (2014). Kent ve Kültür Üzerine. *Mülkiye Dergisi*, 246(29), 9-18.
- Kontuly, T. (1998). Contrasting The Counterurbanisation Experience in European Nations. In K. H. Paul Boyle (Ed.), *Migration into Rural Areas* (pp. 61-78). England: John Wiley&Sons.
- Lewis, D. J., Eversley, D., Robson, B. T., David, F. W. C., Coombes, M., Cheshire, P. C., . . . Champion, A. G. (1989). Counterurbanization in Europe: Discussion. *The Geographical Journal*, 155(1), 75-80. doi:10.2307/635383.
- McCarthy, K., & Morrison, P. (1977). The Changing Demographic and Economic Structure of Nonmetropolitan Areas in the United States. *International Regional Science Review - INT REG SCI REV*, 2, 123-142. doi:10.1177/016001767700200202.
- Mitchell, C. J. A. (2004). Making sense of counterurbanization. *Journal of Rural Studies*, 20(1), 15-34. doi:[https://doi.org/10.1016/S0743-0167\(03\)00031-7](https://doi.org/10.1016/S0743-0167(03)00031-7).
- Mitchell, C. J. A. (2019). The patterns and places of counterurbanization: A 'macro' perspective from Newfoundland and Labrador, Canada. *Journal of Rural Studies*, 70, 104-116. doi:<https://doi.org/10.1016/j.jrurstud.2019.08.003>.
- Mitchell, C. J. A., & Bryant, C. R. (2020). Counterurbanization. In A. Kobayashi (Ed.), *International Encyclopedia of Human Geography (Second Edition)* (pp. 433-438). Oxford: Elsevier.

- Mitchell, C. J. A., & Madden, M. (2014). Re-thinking commercial counterurbanisation: Evidence from rural Nova Scotia, Canada. *Journal of Rural Studies*, 36, 137-148.
doi:<https://doi.org/10.1016/j.jrurstud.2014.07.007>
- Moseley, M. J. (1984). The revival of rural areas in advanced economies: a review of some causes and consequences. *Geoforum*, 15(3), 447-456. doi:[https://doi.org/10.1016/0016-7185\(84\)90050-2](https://doi.org/10.1016/0016-7185(84)90050-2).
- Öğdül, H. (2009). Kırsal Alanların Değişimi ve Kırsal Planlama Çerçevesinde Bir Değerlendirme. *Mimarist*, 2019/3(66), 41-49.
- Sandow, E., & Lundholm, E. (2019). Which families move out from metropolitan areas? Counterurban migration and professions in Sweden. *European Urban and Regional Studies*, 096977641989301. doi:10.1177/0969776419893017.
- Sant, M., & Simons, P. (2008). The Conceptual Basis of Counterurbanisation: Critique and Development. *Australian Geographical Studies*, 31, 113-126. doi:10.1111/j.1467-8470.1993.tb00409.x.
- Sarker, M., Hossain, M., Wu, M., Alam, G. M., Shafi, M., Pervez, A. K. M., & Rahman, A. (2018). Determinants and Pattern of Urbanization and Counter-Urbanization: The Case of South Asia. *The Journal of Social Sciences Research*, 4, 802-812. doi:10.32861/jssr.412.802.812.
- Smith, D., P. Finney, N., & Nigel, W. (2018). *INTERNAL MIGRATION : geographical perspectives and processes*. [Place of publication not identified]: ROUTLEDGE.
- Spectorsky, A. C., 1958, *The exurbanites*. New York: Berkley Books.
- Stockdale, A., Findlay, A., & Short, D. (2000). The repopulation of rural Scotland: opportunity and threat. *Journal of Rural Studies*, 16(2), 243-257. doi:[https://doi.org/10.1016/S0743-0167\(99\)00045-5](https://doi.org/10.1016/S0743-0167(99)00045-5).
- Vaetisi, S., 2013, Anti-urban ideologies and practices in the evolution of the American City Anti-urbanism in America, *Transylvanian Review*, 2013(3), 82-95.
- Vartiainen, P. (1989). Counterurbanisation: a challenge for socio-theoretical geography. *Journal of Rural Studies*, 5(3), 217-225. doi:[https://doi.org/10.1016/0743-0167\(89\)90001-6](https://doi.org/10.1016/0743-0167(89)90001-6).
- Yuan, J., Beard, K., & Johnson, T. R. (2021). A quantitative assessment of spatial patterns of socio-demographic change in coastal Maine: one process or many? *Applied Geography*, 134, 102502. doi:<https://doi.org/10.1016/j.apgeog.2021.102502>.